CITY COUNCIL AGENDA ITEM COVER MEMO

	Agenda Item Number
Meeting Type: Regular	Meeting Date: 6/28/2012
Action Requested By: Engineering	Agenda Item Type Resolution
Subject Matter:	
Agreement with Goodwyn, Mills & Cawood, Inc.	
Exact Wording for the Agenda:	
Resolution authorizing the Mayor to enter into an agre Inc. for Engineering Design Services for U.S. Highway Caldwell Lane, Old Big Cove Road and Plainview Drive,	eement with Goodwyn, Mills & Cawood, 431 Improvements at Sutton Road, , Project No. 65-12-RD03
Note: If amendment, please state title and numbe	r of the original
Item to be considered as	onsent Required: <u>No</u>
Briefly state why the action is required; why it is recommodition allow and accomplish and; any other information that might be represented as a second statement of the secon	
Engineering services contract for modifications needed a Sutton Road improving transitions through intersections services in a lump sum total contract amount of \$175,45	at Old Big Cove Road, Caldwell Lane, and
Associated Cost:	Budgeted Item: Select
1AYOR RECOMMENDS OF CONCURS: Select	
Pepartment Head:	Date: 6 /19/12
19-6-18	

ROUTING SLIP CONTRACTS AND AGREEMENTS

Orlginating Department: Engineering

Council Meeting Date: 6/28/2012

Department Contact: Lynn Majors

Phone # 256-427-5201

Contract or Agreement: Design Services

Document Name: GM&C-US Hwy 431 Improvements-Project No. 65-12-RD03

City Obligation Amount:

\$175,458.70

Total Project Budget:

\$175,458.70

Uncommitted Account Balance:

0

Account Number:

23-6500-0813-8113

Marka	Procurement Agreements
Not Applicable	Not Applicable
	Grant-Funded Agreements
Not Applicable	Grant Name:

Department	Signature	Date
1) Originating		06/14/12
2) Legal	Though Carty	17.7.
3) Finance	12 17	6 29 2
4) Originating		ajesjic
5) Copy Distribution	THE STATE OF STATES	
a. Mayor's office (1 copies)		
b. Clerk-Treasurer(Original & 2 copies)	And the second of the second o	
	dealer and the second section section and the second section section section section section section section section section sec	TANKS MEDICAL AND

TABLE OF CONTENTS

ARTICLE 1 - ENGAGEMENT OF THE ENGINEER
ARTICLE 2 - DESIGN SERVICES OF THE ENGINEER. ARTICLE 3 - OMITTED
ARTICLE 3 - OMITTED
ARTICLE 4 - ADDITIONAL SERVICES
ARTICLE 5 - RESPONSIBILITIES OF OWNER. ARTICLE 6 - PERIOD OF SERVICES
ARTICLE 6 - PERIOD OF SERVICES.
ARTICLE 7 - PAYMENT TO THE ENGINEER
ARTICLE 8 - GENERAL PAYMENT PROCEDURE
ARTICLE 8 - GENERAL PAYMENT PROCEDURE. ARTICLE 9 - GENERAL CONSIDERATIONS
ARTICLE 10 - INDEMNITY AND INSURANCE. ARTICLE 11 - MISCELL ANEQUE PROVIDIONO
ARTICLE 11 - MISCELLANEOUS PROVISIONS ATTACHMENT 1 - SCOPE OF SERVICES.
ATTACHMENT 2 - ALABAMA MANUS ATTACHMENT 2 - ALABAMA MANUS BATTON
ATTACHMENT 2 - ALABAMA IMMIGRATION ACT-REPORT OF OWNERSHIP FORM ATTACHMENT 3 - CITY OF HUNTSVILLE STANDARDS AND AND ADDRESS OF THE PORM
ATTACHMENT 3 - CITY OF HUNTSVILLE STANDARDS AND DESIGN GUIDES. ATTACHMENT 4 - DESIGN REVIEWS
ATTACHMENT 5 - ENGINEERS PERSONNEL FEE SCHEDULE
ATTACHMENT 7 - SUB-CONSULTANTS ENGAGED BY THE ENGINEER
TO TO THE LATE OF THE WALL TO A STATE OF THE WALL TO THE WALL THE
ATTACHMENT 13 - U.S. NATIONAL MAP ACCURACY STANDARDS
TI AUTIVIENT 10 - GIS BASE MAD
THE CHO DAOL WAF

AGREEMENT BETWEEN

CITY OF HUNTSVILLE, ALABAMA AND GOODWYN, MILLS & CAWOOD, INC. FOR

ENGINEERING DESIGN SERVICES FOR U.S. HIGHWAY 431 IMPROVEMENTS AT SUTTON ROAD, CALDWELL LANE, OLD BIG COVE ROAD, AND PLAINVIEW DRIVE

Project I.D Number 65-12-RD03

THIS AGREEMENT made as of the 28th day of June in the year 2012, by and between the CITY OF HUNTSVILLE, ALABAMA (hereinafter called OWNER), and GOODWYN, MILLS & CAWOOD, INC., (hereinafter called ENGINEER).

WITNESSETH, for the considerations hereinafter set forth, the parties hereto agree as follows:

ARTICLE 1 - ENGAGEMENT OF THE ENGINEER

The OWNER hereby engages the ENGINEER, and the ENGINEER hereby accepts the engagement to provide general engineering and consultation as a representative of the OWNER to include the following:

- 1.1 Professional engineering services for design of U.S. Highway 431 Improvements at Sutton Road, Caldwell Lane, Old Big Cove Road, and Plainview Drive as further described in ARTICLE 2, and hereinafter called PROJECT.
- By executing this Agreement, the ENGINEER represents to the OWNER that the ENGINEER is a professional qualified to act as the ENGINEER for the PROJECT and is licensed and certified to practice engineering by all public entities having jurisdiction over the ENGINEER and the PROJECT. The ENGINEER further represents to the OWNER that the ENGINEER will maintain all necessary licenses, certifications, permits or other authorizations necessary to act as ENGINEER for the PROJECT until the ENGINEER's remaining duties hereunder have been satisfied. The ENGINEER shall assign only qualified personnel to perform any service concerning the PROJECT. All services rendered by the ENGINEER for the PROJECT shall be performed by or under the immediate supervision of experienced and qualified professionals licensed, certified, and registered as appropriate in the State of Alabama possessing the expertise in the discipline of the service being rendered. The ENGINEER assumes full responsibility to the OWNER for the negligent acts, errors and omissions of its consultants or others employed or retained by the ENGINEER in connection with the PROJECT.
- 1.3 Execution of this Agreement by the ENGINEER constitutes a representation that the ENGINEER has become familiar with the PROJECT site and the local conditions under which the PROJECT is to be implemented. The ENGINEER agrees to provide all necessary

engineering services required to professionally accomplish the ENGINEER's defined scope of services.

ARTICLE 2 - DESIGN SERVICES OF THE ENGINEER

- 2.1 ENGINEER shall provide for OWNER professional engineering services for design of U.S. Highway 431 Improvements at Sutton Road, Caldwell Lane, Old Big Cove Road, and Plainview Drive.
- 2.2 These services shall include consultation and advice; customary civil, structural, mechanical and electrical engineering design services; and Architectural services incidental thereto, as outlined herein and further described in the SCOPE OF SERVICES, ATTACHMENT 1.
- Upon the OWNERS authorization, the ENGINEER shall prepare construction documents consisting of drawings and specifications setting forth in detail the requirements for construction of the PROJECT. The ENGINEER warrants that such construction documents are accurate, coordinated and adequate for the construction and in conformity and comply with applicable laws, codes and regulations. Products specified for use shall be readily available unless written authorization to the contrary is given by the OWNER. Products or justified in writing by the ENGINEER that are available from only one source shall be procurement or bid requirements.
- 2.4 The ENGINEER shall prepare appropriate bid alternates as necessary in order to assure that the PROJECT can be awarded within the PROJECT budget limitations.
- 2.5 The ENGINEER shall serve as the OWNER's professional representative in those portions of the PROJECT to which this Agreement applies and shall consult with and advise the OWNER during the performance of these services.
- 2.6 The ENGINEER shall incorporate into its design, and into its final work products, the requirements contained within the OWNER's engineering standards, standard specifications, and design manuals referenced in ATTACHMENT 3. The requirements of the State of Alabama Department of Transportation design standards shall be reviewed for applicability and incorporated into portions of the work where joint participation between the OWNER and the State is applicable. When conflicts are noted between the OWNERS requirements and standards of others, the OWNERS standards shall take precedent. Discrepancies shall be brought to the attention of the OWNER. Deviations from OWNER's requirements shall be identified to the OWNER by the ENGINEER in writing prior to incorporating the changes.
- 2.7 The ENGINEER shall obtain all Planning Commission approvals with regard to location, character and extent, as required.
- 2.8 The ENGINEER shall obtain a Utility Project Notification Form (Attachment 10) from all affected utilities on the project by the 60% design review stage. Acceptance shall be provided as a signed original by all affected parties at the 90% design review stage.
- 2.9 The ENGINEER shall promptly correct, or have corrected, any errors, omissions, deficiencies or conflicts in the ENGINEER's work product or that of his sub-contractors/sub-consultants, without additional compensation for time, reproduction or distribution.
- 2.10 During the process of design and preparation of the construction documents, the ENGINEER shall review with the OWNER the construction documents, the estimate of probable construction cost, schedule, and other design services issues. Such review shall be, at a minimum, as outlined in ATTACHMENT 4 as 0%, 30%, 60%, and 90% completion stage.

Following such reviews, the ENGINEER shall make any appropriate revisions thereto to assure compliance with the OWNER's requirements.

Field surveying work is required and shall be performed in accordance with "Standards of 2.11 Practice for Surveying in the State of Alabama" as required by the Alabama Board of Registration for Engineering and Land Surveyors. Surveying shall include P.K. Nails or other permanent stationing markings as well as staking of right-of-way, easements and parcels of land acquired by the City of Huntsville. Property corners shall be set at the new right-of-way. Easements shall be staked as requested by the City of Huntsville. The above field work shall be performed as a minimum as needed at the time of right-of-way acquisition and one additional time near the 100% submittal stage as determined by the OWNER. The cost for these services is included in the fees for Basic Services.

Survey data shall be based on a US Public Land Survey System corner or quarter corner. Said corner or quarter corner shall be field verified by the surveyor and a state plane coordinate provided in deliverables submitted to the City of Huntsville. All survey work shall be based on the following datum's:

Coordinate System:

US State Plane

Zone:

Alabama East 0101

Vertical Datum:

The North American Vertical Datum of 1988 (NAVD 88) The North American Datum of 1983 (NAD 83)

Horizontal Datum: Geoid Model:

Geoid03

Units:

US Survey Feet

- 2.12 The ENGINEER shall comply with the City of Huntsville Tree Ordinance and carry the requirements referenced therein with deliverables (drawings, specifications, etc.) in accordance with Section 27-57 of the City of Huntsville Code of Ordinances (Ord. No. 04-45, §13, 2-12-2004).
- The ENGINEER shall prepare the prebid agenda after obtaining comments from 2.13 stakeholders such as affected utilities, City of Huntsville Construction Project Engineer and Inspector(s), and other City of Huntsville departments as applicable. The ENGINEER shall moderate the prebid meeting, prepare meeting minutes, make clarifications, prepare addendums, and distribute to bidders.
- 2.14 A valid City of Huntsville license shall be maintained throughout the term of this contract. Additionally, the engineering firm shall be required to obtain and pay for all other federal, state or local permits, licenses, and fees which may be necessary or required in order to perform the work detailed herein.

ARTICLE 3 - CONSTRUCTION ADMINISTRATION SERVICES OMITTED

ARTICLE 4 - ADDITIONAL SERVICES

The following services of the ENGINEER are not included in Article 2. Nevertheless, the ENGINEER shall provide such services if authorized in writing by the OWNER, and they shall be paid for by the OWNER as provided in Article 7, unless otherwise noted.

Making revision in drawings, specifications or other documents when such revisions are 4.1 inconsistent with written direction by the OWNER previously given, are required by the

enactment of revision of codes, laws or regulations subsequent to the preparation of such documents and not reasonably anticipated, or are due to other causes not within the control or responsibility of the ENGINEER, either in whole or in part.

- 4.2 Preparing drawings, specifications and supporting data in connection with change orders, provided that such change orders are issued by the OWNER due to causes not within the control or responsibility of the ENGINEER, either in whole or in part.
- 4.3 Providing additional services for repair or replacement of work damaged by acts of God or other cause during construction provided that such services are required by causes not the responsibility of the ENGINEER, either in whole or in part.
- Providing services not otherwise required herein which are made necessary solely by the default of the ENGINEER or major defects or deficiencies in the work of the ENGINEER. These services shall be provided with no increase in the contract amount and will not be compensable on an hourly basis.
- 4.5 Providing expert witness services and other services arising out of claims.
- 4.6 Provide services to stake site during construction.

ARTICLE 5 - RESPONSIBILITIES OF OWNER

The OWNER, without cost to the ENGINEER, will perform the following in a timely manner so as not to delay the services of the ENGINEER:

- 5.1 Assist ENGINEER by placing at ENGINEER's disposal all available information pertinent to the PROJECT including previous reports and any other data relative to design or construction of the PROJECT.
- Provide all criteria and full information as to OWNER's requirements for the PROJECT, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, and any budgetary limitations. The OWNER shall also furnish copies of all design and construction standards, which OWNER will require to be included in the drawings and specifications.
- Assist the ENGINEER as necessary in acquiring access to and making all provisions for the ENGINEER to enter upon public and private lands as required for the ENGINEER to perform the work under this agreement.
- Designate in writing a person to act as the OWNER's representative with respect to the work to be performed under this Agreement, such person to have complete authority to transmit instructions, receive information, interpret and define the OWNER's policies and decision with respect to materials, equipment elements and systems pertinent to the work covered by this Agreement. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by ENGINEER, obtain advice of an attorney, insurance counselor and other consultants as OWNER determines appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of
- When requested by the ENGINEER, the OWNER will intercede on the ENGINEER's behalf when data from, or reviewed by third parties is not on schedule through no fault of the ENGINEER

5.6 The OWNER's review of any documents prepared by the ENGINEER or its consultants shall be solely for the purpose of determining whether such documents are generally consistent with the OWNER's intent. No review of such documents shall relieve the ENGINEER of its responsibility for the accuracy, adequacy, fitness, suitability and coordination of its work product.

ARTICLE 6 - PERIOD OF SERVICES

The ENGINEER shall commence services pursuant to this agreement as of June 29, 2012. The final completion date for the completion of design services as outlined in Article 2 shall be February 10, 2013.

The ENGINEER shall perform these services with reasonable diligence and expediency consistent with sound professional practices. The ENGINEER shall include in his schedule an allowance for time required for OWNER's review of submissions and for approvals of authorities having jurisdiction over the PROJECT. When approved by the OWNER, the schedule shall not be exceeded by the ENGINEER, except for cause.

If the ENGINEER becomes aware of delays due to time allowances for review and approval being exceeded, delay by the OWNER, the OWNER's consultants, or any other reason beyond the ENGINEER's control, which may result in the schedule of performance of the ENGINEER's services not being met, the ENGINEER shall promptly notify the OWNER. If the OWNER becomes aware of any delays or other causes that will affect the ENGINEER's schedule, the OWNER shall promptly notify the ENGINEER. In either event, the ENGINEER's schedule for performance of its services shall be equitably adjusted.

ARTICLE 7 - PAYMENT TO THE ENGINEER

7.1 BASIC SERVICES

The OWNER shall compensate the ENGINEER for services rendered pursuant to this Agreement, excepting those services described as Additional Services in Article 4 of this Agreement, by payment of the LUMP SUM TOTAL CONTRACT AMOUNT OF ONE HUNDRED SEVENTY-SIX THOUSAND FOUR HUNDRED FIFTY-SEVEN AND .70/100 DOLLARS (\$176,457.70) for design services as described in Article 2. Additional services of the ENGINEER as described in Article 4, if any, shall be compensated on an hourly basis in accordance with Attachment 5.

7.2 REIMBURSABLE EXPENSES

The scope of work for sub-contracted services is defined in the ENGINEER's scope of services, Attachment 1. The scope includes provisions for administration expenses for subcontracted services and reimbursable direct expenses including but not limited to laboratory tests and analyses; computer services; word processing services; permit fees, bonds, telephone, printing, binding and reproduction charges; and other similar costs. Indirect costs will have administrative fee reimbursements limited to no more than 5%. Direct costs are also limited to no more than 5% reimbursement.

Reimbursable expenses shall be limited during the term of this agreement as stated in Art. 7.1 Basic Services.

7.3 EFFECTIVE DATE

This contract shall have no force or effect unless and until it is executed by the OWNER and the ENGINEER and a properly executed copy is mailed to the ENGINEER with a notice to proceed (NTP). If a NTP is not issued within sixty (60) days commencing from the last date of execution of this CONTRACT by the OWNER and the ENGINEER, then this CONTRACT shall be NULL AND VOID, the OWNER will not be obligated to any payment to the ENGINEER and the ENGINEER will not be obligated to perform any work under said CONTRACT.

PAYMENT SUMMARY

Engineering Design Services - LUMP SUM AMOUNT OF

\$176,457.70

TOTAL CONTRACT AMOUNT:

\$176,457.70

ARTICLE 8 - GENERAL PAYMENT PROCEDURE

8.1 INVOICES

- 8.1.1 The ENGINEER shall submit monthly invoices to the Administrative Officer in the Engineering Department, for the basic services described under Articles 2 and 4 for the design of the PROJECT. Invoices must include the City of Huntsville project name and number, dates of services, contract amount, previous billings and current billing. Along with each invoice, the ENGINEER must submit a consultant progress report known as Attachment 6. No payment will be made without the consultant progress report completed and attached. Monthly progress reports shall be submitted monthly even if no request for payment is made. If services under Article 4 are included in the invoice for additional services not included under the lump sum provisions, or services billed as time and material, the classification and hours of such persons rendering the services shall be attached to the invoice.
- The signature of the ENGINEER on the invoice shall constitute the ENGINEER's 8.1.2 representation to the OWNER that the services indicated in the invoice have progressed to the level indicated, have been properly and timely performed as required herein, that the reimbursable expenses included in the invoice have been reasonably incurred, that all obligations of the ENGINEER covered by prior invoices have been paid in full, and that, to the best of the ENGINEER's knowledge, information and informed belief, the amount requested is currently due and owing, there being no reason known to the ENGINEER the payment of any portion thereof should be withheld. Submission of the ENGINEER's invoice for final payment and reimbursement shall further constitute the ENGINEER's representation to the OWNER that, upon receipt from the OWNER of the amount invoiced, all obligations of the ENGINEER to others, including its consultants, incurred in connection with the PROJECT, have been paid in full. ENGINEER must designate on Attachment 6 -Progress Report in the appropriate space provided that such action has been completed.

8.2 TIME FOR PAYMENT

The OWNER shall make payment for services in Articles 2 and 4 within 60 days of receipt of valid invoice.

OWNER'S RIGHT TO WITHHOLD PAYMENT 8.3

In the event the OWNER becomes credibly informed that any representations of the ENGINEER, provided pursuant to Article 8.1.2, are wholly or partially inaccurate, the OWNER may withhold payment of sums then or in the future otherwise due to the ENGINEER until the inaccuracy, and the cause thereof, is corrected to the OWNER's reasonable satisfaction. Additionally, failure by the ENGINEER to supply substantiating records shall be reason to exclude related costs from the amounts which might otherwise be payable by the OWNER to the ENGINEER.

8.4 REIMBURSABLE EXPENSES

- In addition to the requirements set forth in 8.1 above, invoices for reimbursable 8.4.1 expenses shall include such documentation as the OWNER may require. Reasonable expenses are limited to the following expenses:
 - (a) Transportation outside the immediate Huntsville area (50 mile radius) approved in advance by the OWNER in writing and incurred in connection with the PROJECT; (Per Department of Treasury, Internal Revenue Service Publication 1542, Per Diem Rates, for travel within the continental United States). Refer to website: www.irs.gov/pub/irs-pdf/p1542.pdf for more information.
 - (b) Charges for long-distance communications;
 - (c) Fees paid for securing approval of authorities having jurisdiction over the PROJECT,
 - (d) Actual costs of reproduction for items in excess of those included in the required services:
 - (e) Postage and handling charges incurred for drawings, specifications and other
- The ENGINEER shall set forth with particularity on its invoice the nature and cost of 8.4.2 the expense item being billed, and attach to its invoice the written authorization, if any, required for such item; and shall bill expenses at actual cost or prevailing rate and without the addition of administrative charge, any multiple or surcharge.

W-9 TAXPAYER FORM 8.5

All ENGINEERING FIRMS are required to submit a Federal Tax Form W-9 to City of Huntsville at the time a contract is awarded. No payments of invoices can be made until this W-9 Tax Form has been properly submitted. A copy of the W-9 Tax Form can be requested from the OWNER or at the following website: www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf.

ARTICLE 9 - GENERAL CONSIDERATIONS

9.1 **GENERAL**

OWNER and ENGINEER agree that the following sections and provisions shall apply to the work to be performed under this Agreement and that such provisions shall supersede any conflicting provisions of this Agreement.

SUB-CONTRACTED SPECIALIZED SERVICES 9.2

The ENGINEER may sub-contract specialized services required of the PROJECT to competent and experienced sub-consultants approved by the OWNER in writing. As a prime professional, the ENGINEER shall act as OWNER's representative for contracting, directing, and managing the services of sub-consultants. The OWNER shall have the right to reject any consultant provided that the OWNER raises a timely objection. At the time of the

execution of this Agreement, the parties anticipate that the consultants listed in Attachment "7" hereto will be retained by the ENGINEER to provide services with respect to the PROJECT. Expenses payable to the ENGINEER for subcontracted services are limited to no more than 5% of the cost of the subcontracted services

9.3 PEER REVIEW

The OWNER reserves the right to conduct, at the OWNER's expense, peer review of designs and drawings prepared by the ENGINEER and/or sub-consultant(s) for the PROJECT. The ENGINEER and sub-consultant(s) agree that knowledge and consent to review of their work by other engineers of the OWNER's choosing is hereby given in accordance with the ADMINISTRATIVE CODE (RULES AND REGULATIONS) of the Alabama State Board of Licensure for Professional Engineers and Land Surveyors, Chapter 330-X-14-.06(a) (13) effective January 2008 and as may be amended now or in the future pertaining to the Code of Ethics for review of the work of another engineer.

9.4 CLARIFICATION OF WORK

If reviewing agencies raise questions regarding the work of ENGINEER, OWNER will participate in such meetings as deemed necessary to explain and clarify this work.

9.5 CANCELLATION OF WORK

This Agreement may be canceled by either party in the event of default or violation of any of the provisions of this Agreement by the other party, by written notice delivered to the address of record by registered mail giving ten (10) days advance notice of the intention to cancel. In the event of cancellation of this Agreement, ENGINEER shall be paid for all work performed to date of cancellation, less any loss, damage, or liability incurred by reason of default of ENGINEER and all records, data, parameters, design calculations and other information collected or obtained in the performance of this Agreement shall be delivered to OWNER.

9.6 CHANGES

- 9.6.1 The OWNER may, at any time by written order, make changes within the general scope of the Agreement in the services to be provided. If such changes cause an increase or decrease in ENGINEER's cost of, or time required for performance of any services, whether or not changed by any order, an equitable adjustment shall be made and the Agreement shall be modified in writing accordingly. Upon notification of change, ENGINEER must assert any claim of ENGINEER for adjustment in writing within 30 days from the date of receipt unless OWNER grants a further period of time.
- 9.6.2 If findings in any phase of this PROJECT significantly alter the scope of work for subsequent phases, or if regulations are changed resulting in a scope of work change for any phase, engineering fees set forth in Article 7 may be renegotiated by the OWNER and ENGINEER.

9.7 ENGINEER'S RECORDS

Documentation accurately reflecting services performed and the time expended by the ENGINEER and his personnel and records of reimbursable expenses shall be prepared concurrently with the performance of the services and shall be maintained by the ENGINEER. The ENGINEER shall maintain record copies of all written communications, and any memoranda of verbal communications related to the PROJECT. All such records and documentation shall be maintained for a minimum of five (5) years after the PROJECT date of final completion or for any longer period of time as may be required by law or good

practice. If the ENGINEER receives notification of a dispute or of pending or commencement of litigation during this five-year period, the ENGINEER shall continue to maintain all PROJECT records until final resolution of the dispute or litigation. The ENGINEER shall make such records and documentation available to the OWNER upon notice and shall allow the authorized representative(s) of the OWNER to inspect, examine, review and copy the ENGINEER's records at the OWNER's reasonable expense.

9.8 USE AND OWNERSHIP OF DOCUMENTS

All rights of ownership, copyrights, construction documents, including all drawings, specifications and other documents, electronic media, computer source code, or things prepared by or on behalf of the ENGINEER for the PROJECT are hereby transferred to the OWNER and shall be the sole property of the OWNER and are free of any retention rights of the ENGINEER. The ENGINEER hereby grants to the OWNER an unconditional right to use or to refer to, for any purpose whatsoever, the construction documents and any other documents or electronic media, computer source code prepared by or on behalf of the ENGINEER for the PROJECT, free of any copyright claims, trade secrets or other proprietary rights with respect to such documents. The ENGINEER shall be permitted to retain copies thereof for its records. The ENGINEER's documents and other work products are not intended or represented to be suitable for re-use by OWNER or others on extensions of the PROJECT or on any other PROJECT. Any re-use without specific written verification or adaptation by ENGINEER will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER shall indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses including attorneys' fees arising out of, or resulting from, such reuse by the OWNER; provided however, that this agreement to indemnify and save harmless shall not apply to any reuse of documents retained by, or through, the ENGINEER.

9.9 ESTIMATE OF CONSTRUCTION COST

Since ENGINEER has no control over the construction cost of labor, materials, or equipment, or over the construction contractor(s) methods of determining prices, or over competitive bidding or market conditions, his opinion of probable PROJECT cost or construction cost provided for herein are to be made on the basis of his experience and qualifications and represent his best judgment as a design professional familiar with the construction industry; but, ENGINEER cannot and does not guarantee that proposals, bids or construction costs will not vary from opinions of probable cost prepared by him. If OWNER wishes greater assurance as to the construction cost, he will employ an independent cost estimator.

9.10 TERMINATION FOR CAUSE

This Agreement may be terminated by either party upon seven (7) days written notice to the other should such other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination.

9.11 TERMINATION BY THE OWNER WITHOUT CAUSE

The OWNER may terminate this Agreement without cause upon seven (7) days' written notice to the ENGINEER. In the event of such a termination without cause, the ENGINEER shall be compensated for all services performed prior to termination, together with Reimbursable Expenses incurred. In such event, the ENGINEER shall promptly submit to

the OWNER its invoice for final payment and reimbursement which invoice shall comply with the provisions of Paragraph 8.1.

ARTICLE 10 - INDEMNITY AND INSURANCE

10.1 INSURANCE

The ENGINEER shall carry insurance of the following kinds and amounts in addition to any other forms of insurance or bonds required under the terms of the contract specifications. The ENGINEER shall procure and maintain for the duration of the job until final acceptance by the OWNER, or as later indicated, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, his agents, representatives, employees or subcontractor.

10.2 MINIMUM SCOPE OF INSURANCE:

A. General Liability:

Insurance shall be written on an occurrence basis. Claims-made coverage will be accepted only on an exception basis after the OWNER's approval. The same insurance company should write General Liability Coverage and OWNERs ENGINEERs Protective Insurance.

B. Commercial General Liability

Products and Completed Operations Contractual Personal Injury Explosion, Collapse and Underground Broad Form Property Damage

C. Professional Liability:

Insurance may be written on a "claims-made" basis, providing coverage for negligent acts, errors or omissions in the performance of professional services. Coverage shall be maintained for a discovery and reporting period of no less than five (5) years after completion of the professional services and Certificates of Insurance shall be submitted to the OWNER on a yearly basis during this time frame. Coverage shall be no less comprehensive than that which is carried by at least 25% of the registered engineers or engineering firms contracting in the State of Alabama. Such coverage shall be carried on a continuous basis including prior acts coverage to cover the subject PROJECT. The professional liability insurance shall contain contractual liability coverage.

D. Automobile Liability:

Business Automobile Liability providing coverage for all owned, hired and non-owned autos. Coverage for loading and unloading shall be provided under either automobile liability or general liability policy forms.

E. Workers' Compensation Insurance:

Statutory protection against bodily injury, sickness or disease or death sustained by employee in the scope of employment. Protection shall be provided by a commercial insurance company or a recognized self-insurance fund authorized before the State of Alabama Industrial Board of Relations. "Waivers of Subrogation" in favor of the OWNER shall be endorsed to Workers' Compensation Insurance.

suspended, voided, canceled, non-renewal or materially changed by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the OWNER. Cancellation of coverage for non-payment of premium will require ten (10) days written notice to the OWNER.

10.5 ACCEPTABILITY OF INSURERS:

Insurance is to be placed with insurers authorized by the State of Alabama with an A. M. Best rating of A-V or better.

10.6 VERIFICATION OF COVERAGE:

The OWNER shall be indicated as a Certificate Holder and the ENGINEER shall furnish the OWNER with Certificates of Insurance reflecting the coverage required by this document. The A. M. Best rating and deductibles, if applicable, shall be indicated on the Certificate of Insurance for each insurance policy. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf and must be an original signature. Certificates signed using digital signatures will not be accepted. All certificates are to be received and approved by the OWNER before work commences. The OWNER reserves the right to require complete, certified copies of all required insurance policies at any time.

10.7 CONSULTANTS AND/OR SUBCONTRACTORS WORKING FOR THE ENGINEER:

The ENGINEER shall furnish separate certificates and/or endorsements for each subcontractor and/or consultant showing insurance of the same type or types and to the extent of the coverage set forth in this Article 10.

10.8 HOLD HARMLESS AGREEMENT:

A. Other Than Professional Liability Exposures:

The ENGINEER, to the fullest extent permitted by law, shall indemnify and hold harmless the OWNER, its elected and appointed officials, employees, agents, and representatives against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to personal injury, including bodily injury sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting there from, and (2) is caused by any negligent act or omission of the ENGINEER or any of their consultants, or anyone directly or indirectly employed by them or anyone for whose acts they are legally liable. Such obligation should not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person, described in this paragraph.

B. Professional Liability:

The ENGINEER agrees, to the fullest extent permitted by law, to defend, protect, indemnify and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, costs, fees, and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) actually or allegedly arising out of, or resulting from, the professional services of the ENGINEER or the ENGINEER's consultants, subcontractors, or suppliers, including, without limitation, any breach of contract or any negligent acts, errors, or omissions

in the performance of the professional services provided pursuant to or as a result of this Agreement. Neither, the OWNER nor the ENGINEER shall be obligated to indemnify the other party in any manner whatsoever for the other parties own negligence. The OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the ENGINEER, its officers, directors, employees and sub consultants against all damages, liabilities or cost including reasonable attorney's fees and defense cost, to the extent caused by the OWNER's negligence acts in connection with the PROJECT and acts of its contractors, subcontractors, or consultants or anyone for whom the client is legally llable.

To the fullest extent permitted by law, the ENGINEER shall defend, protect, indemnify, and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by the OWNER in writing. If the ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, the ENGINEER shall be responsible for such loss unless such information is promptly given to the OWNER.

ARTICLE 11- MISCELLANEOUS PROVISIONS

11.1 GOVERNING LAW

This Agreement shall be governed by the law of the State of Alabama.

11.2 INTENT AND INTERPRETATION

- 11.2.1 The intent of this contract is to require complete, correct and timely execution of the work. Any work that may be required, implied or inferred by the contract documents, or any one or more of them, as necessary to produce the intended result shall be provided by the ENGINEER.
- 11.2.2 This contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one contract document shall be considered as required by the contract.
- 11.2.3 When a word, term or phrase is used in this contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the engineering industry; and third, if there is no generally accepted meaning in the engineering industry, according to its common and customary usage.
- 11.2.4 The words "include", "includes", or "including", as used in this contract, shall be deemed to be followed by the phrase, "without limitation".
- 11.2.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this contract.
- 11.2.6 Words or terms used as nouns in this contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

11.3 TIME IS OF THE ESSENCE

Time limitations contained herein, or provided for hereby, are of the essence of this Agreement. The ENGINEER understands and acknowledges that time is of the essence in completion of the PROJECT and that the OWNER will incur damages if the PROJECT is not completed on time.

11.4 SUCCESSORS AND ASSIGNS

The ENGINEER shall not assign its rights hereunder, excepting its right to payment, nor shall it delegate any of its duties hereunder without the written consent of the OWNER. Subject to the provisions of the immediately preceding sentence, the OWNER and the ENGINEER, respectively, bind themselves, their successors, assigns and legal representatives to the other party to this Agreement and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be party hereof, nor shall it be construed as giving any rights or benefits hereunder to anyone other than OWNER and ENGINEER.

11.5 NO THIRD-PARTY BENEFICIARIES

This Agreement shall inure solely to the benefit of the parties hereto and their successors and assigns. Nothing contained herein is intended to or shall create a contractual relationship with, or any rights in favor of, or any cause of action in favor or, any third party, against the OWNER or the ENGINEER.

11.6 INTELLECTUAL PROPERTY/ CONFIDENTIALITY

All information, documents, and electronic media, computer source code furnished by the OWNER to the ENGINEER belong to the OWNER, are considered proprietary and confidential, unless otherwise indicated by the OWNER, and are furnished solely for use on the OWNER's PROJECT. Such information, documents, and electronic media, computer source code shall be kept confidential by the ENGINEER, shall only be released as necessary to meet official regulatory requirements in connection with the PROJECT, and shall not be used by the ENGINEER on any other PROJECT or in connection with any other person or entity, unless disclosure or use thereof in connection with any matter other than services rendered to the OWNER hereunder is specifically authorized in writing by the OWNER in advance.

11.7 SUBCONTRACT REQUIREMENTS

The ENGINEER shall include the terms and conditions of this Agreement in every subcontract or agreement with a consultant for this PROJECT so that these terms and conditions shall be binding upon each subcontractor or consultant. The subcontractor(s)/consultant(s) will maintain all licenses and certifications to practice engineering by all public entities having jurisdiction over the PROJECT. The subcontractor (s)/consultant(s) further represent to the OWNER that the subcontractor(s)/consultant(s) will maintain all necessary licenses, certifications, permits or other authorizations necessary for the PROJECT until the remaining duties hereunder have been satisfied.

11.8 NOTICES

Unless otherwise provided, all notices shall be in writing and considered duly given if the original is hand delivered; if delivered by facsimile to 256-427-5325, or is sent by U.S. Mail, postage prepaid to City of Huntsville Engineering, P. O. Box 308 (35804), 320 Fountain Circle

(35801), Huntsville, AL. All notices shall be given to the addresses set forth above. Notices, hand delivered or delivered by facsimile, shall be deemed given the next business day following the date of delivery. Notices given by U.S. Mail shall be deemed given as of the second business day following the date of posting.

11.9 STRICT COMPLIANCE

No failure of the OWNER to insist upon strict compliance by the ENGINEER with any provision of this Contract for Professional Services shall operate to release, waive, discharge, modify, change or affect any of the ENGINEER's obligations.

11.10 **WAIVER**

No provision of this Agreement may be waived except by written agreement of the parties. A waiver of any provision on one occasion shall not be deemed a waiver of that provision on any subsequent occasion, unless specifically stated in writing. A waiver of any provision shall not affect or alter the remaining provisions of this Agreement.

11.11 SEVERABILITY

If any provision of this Agreement, or the application thereof, is determined to be invalid or unenforceable, the remainder of that provision and all other provisions of this Agreement shall remain valid and enforceable.

11.12 ETHICS

The ENGINEER shall not offer or accept any bribes or kickbacks from or to any manufacturer, consultant, trade contractor, subcontractor, supplier or any other individual or entity in connection with the PROJECT. The ENGINEER shall not confer on any governmental, public or quasi-public official having any authority or influence over the PROJECT any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised. The ENGINEER shall not, without the express written permission of the OWNER, engage or recommend to the OWNER engagement of any consultant, trade contractor, subcontractor, or supplier to provide services on behalf of the ENGINEER, OWNER or PROJECT in which the ENGINEER has a direct or indirect propnetary or other pecuniary interest; or call for the use of or by exclusion require or recommend the use of products, materials, equipment, systems, processes or procedures in which the ENGINEER or in which any consultant, trade contractor, subcontractor, or supplier of the ENGINEER has a direct or indirect proprietary or other pecuniary interest. Without prior notification and written approval of the OWNER, the ENGINEER and the ENGINEER'S subconsultants shall not offer services to the OWNER'S contractor.

11.13 ALABAMA IMMIGRATION ACT

Compliance with the requirements of the (Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2012-535, Code of Alabama (1975) § 31-13-1 through 31-13-30, commonly referred to as the Alabama Immigration Law, is required for City of Huntsville, Alabama contracts as a condition of the contract performance. As a condition of this agreement, pursuant to Act No. 2012-535, Code of Alabama (1975) § 31-13-1 through 1-13-30, compliance with this requirement shall be done by the ENGINEER by completion of the "City of Huntsville, Alabama Report of Ownership Form" listed as Attachment 2 in this agreement and returning the completed form to the Engineering Division either by fax to 256/427-5325 to the attention of Mary Hollingsworth, email to

Mary Hollingsworth@huntsvilleal gov, hand delivery or mail to: City of Huntsville Engineering Division, P. O. Box 308, Huntsville, AL 35804. The form shall be returned at

the time of the signing of the contract by the ENGINEER and must be submitted before the contract is presented to the City of Huntsville City Council for approval.

11.14 E-VERIFY - NOTICE

The ENGINEER shall enroll, and shall remain enrolled for the duration of this contract, in a designated employment eligibility verification system (E-Verify) in accordance with the City of Huntsville Ordinance 09-735. If the ENGINEER uses subcontractors in connection with the performance of work herein and the value of the subcontract exceeds \$3,000, the subcontractor shall also comply with this ordinance. The ENGINEER shall include specific written notice in all requests for bids or proposals prepared by the ENGINEER that contractors and any subcontractors are required to enroll in the E-verify program as required by the ordinance. Failure to comply with the requirements of the ordinance shall be a material breach of the contract.

As a condition of this agreement, pursuant to 8 U.S.C.§1324a, Goodwyn, Mills & Cawood, Inc. hereby certifies that it has not knowingly employed, recruited, referred for a fee, or contracted with an unauthorized alien, with respect to employment in the United States. Further, Goodwyn, Mills & Cawood, Inc. hereby certifies that it has enrolled in the City of Huntsville designated employment eligibility verification system in accordance with Ordinance 09-735 and will maintain enrollment throughout the term of this contract.

Goodwyn, Mills & Cawood, Inc. (Company)

(Authorized Representative)

ATTACHMENT 1-SCOPE OF SERVICES

(Refer to Letter dated May 8, 2012, from Eric Lane to Shane Davis and attachments).

GOODWYN MILLS CAWOOD

May 31, 2012

Mr. Shane Davis, P.E.

City Engineer

City of Huntsville Engineering

P.O. Box 308

Huntsville, Alabama 35804

RE: U.S. Hwy. 431 Improvements @ Sutton Road, Caldwell Lane, Old Big Cove Road, and Plainview Drive- - - Grade, Base, and Pavement Improvements Madison County, AL

Dear Mr. Davis,

Goodwyn, Mills and Cawood, Inc. (GMC) is pleased to provide our services for the above referenced project. GMC has recently developed conceptual plans regarding the above referenced improvements and has met with the City of Huntsville (COH) to iron out the details of what is expected with the further developments of this project. The following items outline the scope of work that is currently being proposed:

Corridor Study

(See Sub-Consultant man day proposal and summary)

Field Survey

Task A: Mobilization and Basic Control Survey. GMC will utilize existing preliminary layout data to determine what the limits of construction should be in regards to the improvements being made. Horizontal and vertical control will be set in field in order to tie down existing ROW along said corridors.

Task B: Project Alignment and Profile. Run closure of control survey, prepare closure diagram, and establish centerline of construction and profile each roadway/intersecting centerline based on control survey.

Task C: Supplemental Control Survey and Data Gathering. Topo cross roads, topographical survey of streams, define drainage areas and prepare drainage map, obtain cross sections at 50 feet intervals 200 feet wide.

Task D: Utility Survey, Drainage Sections and Compilation of Data. Identify and locate existing utilities, survey existing properties, tie section

SOCODWYN, MILLS AND CAWOOD, INC.

corners, obtain property deeds, set centerline control, reduce all field data for submittal to the City of Huntsville Engineering Department.

Plan Development

GMC will develop construction plans per COH requirements to include title sheet, index sheet, project notes sheet, plans legend sheet, typical sections sheet, summary of quantities sheet, summary box sheets, plan and profile sheets, paving layout sheets, traffic control sheets, signing and striping sheets, utility location sheets, drainage sections sheets, special detail sheets, erosion control sheets, and cross section sheets for each project individually as directed by the COH.

In addition to the above mentioned items, a signal design and warrant analysis will be performed by Skipper Consulting for this project at the proposed signalized intersection of Old Big Cove Road and Hwy. 431. A Categorical Exclusion (CE) is also to be performed by AST Consulting and Contracting to examine what if any environmental impacts may be present within the areas to be improved.

Based on previous projects and COH requirements, GMC estimates that the total construction package shall consist of approximately 73 sheets. GMC will attend 60% Reviews and 90% Reviews with COH and ALDOT at the required times. Upon review of the Construction Plan Submittal set of plans, GMC will proceed with development of the 100% set of plans (mylars) for submittal and further letting at the COH's discretion.

GMC will provide these services for the following fees. This fee is broken out into individual man-days on the attached spread sheet.

Task Summary	_ = 1
Corridor Study (proposed CE Checklist see attached)	Fee
Field Survey	\$13,272.00
	\$19,423.60
Plan Development (including signal design/warrant & geotech)	\$143,762.10
Right-of-Way Maps, Deeds, & Tract Maps (none expected) Total	\$0.00
Total	\$176,457.70

GMC will provide these services for a total fee of \$176,458. This fee is broken out into individual man-days on the attached spreadsheet. A schematic for the proposed improvements is attached for informational purposes.



-Permitting (ADEM, Army Corps., etc)

Our reasonable schedule of completion will be 226 calender days. Assuming that we begin work on June 15, 2012, our estimated completion date will be April 4, 2013.

These services can be provided per the attached fee schedule. These hourly rates will remain in effect for the duration of the Contract and/or the completion date.

Goodwyn, Mills and Cawood, Inc. appreciated the opportunity to provide our services on this important City of Huntsville Project and looks forward to working with your staff. If you have any questions or comments on our fee proposal, please call me at 539-3431.

Sincerely,

Goodwyn, Mills and Cawood, Inc.

Eric Lane, P.E

Huntsville Civil Department

7:24 AM

Project No.	
Project Name	Imp. Hwy. 431 @ Sutton Rd. Caldwell Ln., Old Big Cove Rd., and Plainview Di
Scope of Work	Design of Auxillary Lanes/ Widening along Hwy. 431
i joject religitii	0/01 P:+/####################################
C.O.H. Project Engineer	Chris McNeese
Engineering Consultant	Goodwyn, Mills and Cawood, Inc.
	RAND TOTAL OF FEE BRODES

GRAND TOTAL OF FEE PROPOSAL

1	1 NOI 03/	~	
Corridor Study	Labor Cost	Out-of-pocket Expenses	Fee
Field Surveys	\$0.00	\$0.00	\$0.0
Preliminary Roadway Plans	\$19,411.60	\$12.00	\$19,423.6
Preliminary Bridge Plans	\$0.00	\$0.00	\$0.0
Right-of-Way Map, Tract Sketches and Deeds	\$0.00	\$0.00	\$0.0
Roadway Plans	\$0.00	\$0.00	\$0.0
Bridge Plans	\$141,316.60	\$2,445.50	\$143,762.1
Drainage Plans	\$0.00	\$0.00	\$0.0
Sanitary Sewer Plans	\$0.00	\$0.00	\$0.0
nvironmental	\$0.00	\$0.00	\$0.0
	\$13,272.00	\$0.00	\$13,272.00
SUB-TOTAL	\$160,728.20	\$2,457.50	\$163,185.70
GRAND	TOTAL FEE		\$176,458

LABOR RATES	Effective Time Period	June 2011 til June 2012 (see attached)
Classification	Hourly Rate	Assigned Personnel
Project Engineer Environmental Scientist	\$170.00	Burt Hankins, PE
Design Engineer	\$150.00	
ngineer Tech. / CADD Derical	\$75.00	Eric Lane, PE Sarah Ray
LS	\$65.00 \$130.00	Kathy Fields
urvey Crew	\$435.00	Richard Campbell 3-man crew

Signed

5 31 12

Date

Project Manager

7:24 AM

Project No.				
Project Name Imp. Hwy. 431 @	Sutton Rd. Caldwell I	n Old Di- C		
Description Grade, Base, and	Pavement	III., Old Big C	ove Rd., a	nd Plainview I
Scope of Work Design of Auxillary	Lange/ Midanina al			
Project Length 1875 LF +/-	carres/ vvidening aid	ong Hwy. 431		
C.O.H. Project Engineer Chris McNeese				
Engineering Consultant Goodwyn, Mills and	10-			
F	ee Proposal (Fie	ld Survey)		
PERSONNEL COST				
		1=		
	10000 4000	Daily Rate]	
Project Engineer	Man-days		ļ	
PLS	1.00	\$ 1,360.00	\$	1,360.0
Survey Crew	4.54	\$ 1,040.00	\$	4,721.6
ngineer Tech. / CADD		\$ 1,080.00		8,910.00
Clerical	6.50			3,900.00
	1.00			520.00
		Sub-Total	\$	19,411.60
SUB-CONSULTANTS (attach man-day & fee FROM	each sub-consults	nt: chow tot	-16- 6	
	E-AR STREET	int, SHOW tot	\$	ach here)
	5.00mm - 10000 产品 1 g		\$444	THE REAL PROPERTY.
	BESUS BINES I TH		\$ 15 h #	16 TEN 10 10 10 10 10 10 10 10 10 10 10 10 10
THE SALE OF THE SA	Plansing Pages		\$	4 M 4
	经制度		SHE HALL	El ale
ubconsultant Administration Expense (5%)	第三四条		SHERITE	STANDED RAINS
Expense (5%)			\$	275 Proc. 5 Politic 2010/07 21 To 47 240
		ub-Total	\$	
	TOT	AL LABOR	\$	19,411.60

7:24 AM

Project No.	
Project Name	Imp. Hwy. 431 @ Sutton Rd. Caldwell Ln., Old Big Cove Rd., and Plainview D
	Grade, base, and Pavement
Scope of Work	Design of Auxillary Lanes/ Widening along Hwy. 431
Project Length	1875 LF +/-
C.O.H. Project Engineer	Chris McNeese
Engineering Consultant	Goodwyn, Mills and Cawood, Inc.
	yn, mme and edifold, me.

FIELD SURVEY Based on a 3 Man Crew	PLS	Survey Crew	Engineer Tech. / CADD
Based on a 3 Man Crew			
	ESTIMA	ATED MAN	-DAYS
Contact Property Owners	0.001	0.00	0.00
Perform Basic Control Survey	0.63	1.75	0.75
Obtain Topographic Data	0.63	2.50	0.75
Define Drainage Areas/Prepare Schematic Drainage Map	0.38	0.00	
Identify/Locate Utilities	0.63	1.50	1.00
Tie to Required Property Corners	0.63		0.00
Obtain Copies of Latest Deeds	0.63	1.25	0.75
Set & Reference Pls, PCs, POTs, POCs, & other critical points		0.00	0.00
Prepare Detailed Topographical/Field Map	0.38	1.25	0.75
THE TOP INTO SELECTION OF THE PROPERTY OF THE	0.63	0.00	2.50
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00
TIMES	4.54	8.25	6.50

7:24 AM

Project No.							
Project Name Imp. Hwy. 431 @ S	Sutton Rd. (Caldwell Ln	Old Big (Cove	Pd o	and I	Noinvier
Bescription Grade, base, and	-avement		if old big	-	itu., e	2110 1	lainview
Scope of Work Design of Auxillary	Lanes/ Wid	lı .					
Project Length 1875 LF +/-							·
C.O.H. Project Engineer Chris McNeese							
Engineering Consultant Goodwyn, Mills and	Cawood, I	nc					
Out-of-pocket Ex	penses	Field Su	TVOV)				
PRINTING / REPRODUCTION COST		· ioid od	i vey)				
Type of printing/reproduction	# of Sets	Sheets per Set	Total Sheets		st per		
Field Prep. Sheets for Notes	2	3344	6	\$	heet	0	Total
Drainage Analysis Sheets 编版	2	3	6	\$	1.00		6.0
(1) 40 PP 10 PP 1	0	0	0	\$	1.00	\$	6.0
	0	0	0	\$		\$	
	0	0	0	\$	MEX	\$	
	0	0	0	\$	-1274,02	\$	
				9.10		Ψ	-
		Total Print	ing/Repro	duc		\$	12.0
Communication Cost (telephone, few etc.)		Total Print	ing/Repro	duc		\$	12.0
Communication Cost (telephone, fax, etc.)	Security Burney	Total Print	ing/Repro	duc		\$	12.0
	*Service VIII.	Total Print	ing/Repro	duc		\$	
	Select Mark	Total Print	ing/Repro	duc		\$	Total
Communication Cost (telephone, fax, etc.) Postage Cost (overnight, stamps, etc.)	Samuel Call	Total Print	ing/Repro	duc		\$	Total -
ostage Cost (overnight, stamps, etc.)		Total Print	ing/Repro	duc		\$	Total -
	Salves (1) is	Total Print	ing/Repro	duc		\$	Total Total
ostage Cost (overnight, stamps, etc.)		Total Print	ing/Repro	duc	tion C	\$	Total Total Total
ostage Cost (overnight, stamps, etc.)		Total Print	ing/Repro	oduc	tion C	\$	Total Total
ostage Cost (overnight, stamps, etc.)				duc	tion C	\$ \$ \$	Total Total Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)		Total Print		duc	tion C	\$	Total Total Total
ostage Cost (overnight, stamps, etc.)				duc	tion C	\$ \$ \$	Total Total Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)				duc	tion C	\$ \$ \$	Total Total Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)				duc	tion C	\$ \$ \$	Total Total Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)				duc	tion C	\$ \$ \$	Total Total Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)				duc	tion C	\$ \$ \$	Total Total Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)				duc	tion C	\$ \$ \$	Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)				duc	tion C	\$ \$ \$	Total Total Total

Project No.				
Project Name Imp	. Hwy. 431 @ Sutton Rd. Caldwell Ln.			
Description Gra	de, Base, and Pavement	, Old Big Co	ve Rd., a	and Plainview Dr.
Project Length 187	ign of Auxillary Lanes/ Widening alon	g Hwy. 431		
C.O.H. Project Engineer Chri	s McNeese			
Engineering Consultant Goo	dwyn, Mills and Cawood, Inc.			
	Fee Proposal (Roadway Plar	10)		
	, todaway Flai	13/		
PERSONNEL COST				
		Della Data	7	
Project F	Man-days	Daily Rate @	3	
Project Engineer		8hrs/day \$ 1,360.00	 	
Design Engineer	42 46	\$ 1,360.00 \$ 1,200.00	\$	19,665.6
ngineer Tech. / CADD	76.60	\$ 600.00		50,952.0
renear	4.00			45,960.0
		Sub-Total		2,080.0
UB-CONSULTANTS (attach and		- Jus-10tal	1 4	118,657.6
ignal Design & Signal Warrant Analy	ay & fee FROM each sub-consultan	t; show tota	fee for	each house
Total Survey Materials Total			\$	13,580.00
			\$	13,560.00
ubconsultant Administration Expense	1/5%)		\$	8,000.00
			\$	1,079.00
	<u> </u>	ub-Total	\$	22,659.00
	TOT	AL LABOR	A .	141,316.60

Project No.
Project Name Imp. Hwy. 431 @ Sutton Rd. Caldwell Ln., Old Big Cove Rd., and Plainview Dr. Description Grade Base and Royament
The state of the s
Scope of Work Design of Auxillary Lanes/ Widening along Hun. 431
1 Toject Length 18/5 LF +/-
C.O.H. Project Engineer Chris McNeese
Engineering Consultant Goodwyn, Mills and Cawood, Inc.

ROADWAY PLANS					D MAN-		
	- 1			De	sign		er Tech.
1	# OF	Project	Engineer		ineer	C	ADD
SHEET TITLE	SHEETS	DAYS	1	DAYS/		DAYS/	
TITLE SHEET				SHEET	TOTAL	SHEET	TOTAL
INDEX SHEET	1.00						0.5
PROJECT NOTE SHEET	1.00	The second secon		0.25		0.50	0.5
PLANS LEGEND	1.00					0.50	0.50
TYPICAL SECTIONS	2.00	0.06	0.12	0.25	0.50	0.50	1.00
Main Roadway	2.00	0.40					
Cross Roads	1.00			0.50	1.00	1.00	2.00
Detour & Misc.	0.50		0.19	0.63	0.63	1.25	1.25
Ramps	0.00		0.07	0.50	0.25	1.00	0.50
	0.00		0.00	0.00	0.00	0.00	0.00
	0.00		0.00	0.00	0.00	0.00	0.00
SUMMARY SHEET	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Main Summary	1.00	0.25	0.05				
SUMMARY BOX SHEETS	**************************************	0.20	0.25	0.75	0.75	1.50	1.50
Roadway Pipe	0.50	0.06	0.00				
Culvert Extension, New Culvert	0.25	0.06	0.03	0.50	0.25	0.75	0.38
Bridge Culvert Extension, New Bridge Culvert	0.00	0.00	0.02	0.50	0.13	0.75	0.19
Guardrail	0.13	0.06	0.00	0.00	0.00	0.00	0.00
Slope Paving (Under Bridges)	, 0.00	0.00	0.00	0.50	0.07	0.75	0.10
Side Drain Pipe	0.25	0.06	0.00	0.00	0.00	0.00	0.00
Signing	0.25	0.06	0.02	0.50	0.13	0.75	0.19
Base & Pavement	0.13	0.06	0.02	0.63	0.16	1.00	0.25
Bridge	0.00	0.00	0.00	0.63	0.08	0.75	0.10
Striping & Pavement Markings	0.13	0.06	0.01	0.25	0.00	0.00	0.00
Curb & Gutter	0.25	0.06	0.02	0.25	0.03	0.50	0.07
Bridge End Slabs	0.00	0.00	0.00	0.00	0.06	0.50	0.13
Roadway Lighting	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sidewalk	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slope Paving (Ditches)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ditch Summary	0.25	0.06	0.00	0.50	0.00	0.00	0.00
Concrete Safety Barrier	0.00	0.00	0.00	0.00	0.13	0.75	0.19
Retaining Wall	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Misc. Boxes	1.00	0.13	0.13	1.00	0.00	0.00	0.00
rosion Control	0.50	0.06	0.03		1.00	2.00	2.00
The state of the s	0.00	0.00			0.25	1.50 0.00	0.75 0.00

			ES	TIMATE	D MAN-	DAYS	
ROADWAY PLANS		Project		De	sign	Engine	
	# OF	DAYS/	Engineer		ineer		ADD
SHEET TITLE		DAT SI		DAYS/	l	DAYS/	
PLAN & PROFILE	OFFETS	SHEET	TOTAL	SHEET	TOTAL	SHEET	TOT
Main Roadway	5.00	0.42	0.05				
Crossroads	0.00				3.75		7
Detours	0.00	0.00	0.00	The second second	0.00		C
Retaining Walls	0.00		0.00	0.00	0.00		
TELES TO THE	0.00		0.00	0.00	0.00		
PAVING LAYOUT	1 0.00	0.00	0.00	0.00	0.00	0.00	
Main Roadway	4.00	0.13	0.52	0.60	2.00	ally A sol	
Crossroads	0.00	0.00	0.00	0.50	2.00	1.50	6
Intersections	1.50	0.06	0.00	0.50	0.00	0.00	0
· 柳县里子生态。 (1000年) 100年 (1000年) (100年)	0.00	0.00	0.00	0.00	0.75	1.50	2
INTERCHANGES	3.00	0.001	0.00	0.00	0.00	0.00	0
Geometrics	0.00	0.00	0.00	0.00	0.00	100 O S	
Ramps Profiles	0.00	0.00	0.00	0.00	0.00	0.00	0
Site Grading	0.00	0.00	0.00	0.00	0.00	0.00	0
Cross Sections	0.00	0.00	0.00	0.00	0.00	0.00	0
Signing	0.00	0.00	0.00	0.00	0.00	0.00	0.
THE PARTY OF STREET STREET, ST	0.00	0.00	0.00	0.00	0.00	0.00	0.
RAFFIC CONTROL			0.00	0.00	0.00	0.00	0.
Sequence of Construction	1.00	0.06	0.06	0.50	0.50	1.00	. 4
Summary & notes	1.00	0.06	0.06	0.50	0.50	1.00	<u>1.</u>
ypical Section Sketches	1.00	0.06	0.06	0.25	0.25	1.00	
igning Layout	4.00	0.06	0.24	0.38	1.52	0.75	1.0
pecial Drawings	5.00	0.00	0.00	0.13	0.65	0.50	2.
TRIBINO & BLOWN	0.00	0.00	0.00	0.00	0.00	0.00	0.0
TRIPING & SIGNING					23.3	0.00	0.1
igning, Striping & Pavement Markers Layout	4.00	0.06	0.24	0.50	2.00	1.00	4.0
が発展します。 1961年 - 1964年 - 1964	0.00	0.00	0.00	0.00	0.00	0.00	0.0
IGNALIZATION	0.00	0.00	0.00	0.00	0.00	0.00	0.0
ignal Layout (1 per site)	-						
raffic Analysis	0.00	0.00	0.00	0.00	0.00	0.00	0.0
affic Counts (1 per site)	0.00	0.00	0.00	0.00	0.00	0.00	0.0
gnal Warrant Analysis (1 per site)	0.00	0.00	0.00	0.00	0.00	0.00	0.0
pecial Details	0.00	0.00	0.00	0.00	0.00	0.00	0.0
ee Attached)	0.00	0.00	0.00	0.00	0.00	0.00	0.0
TILITY SHEETS	0.00	0.00	0.00	0.00	0.00	0.00	0.0
ility Sheets	400	0.001					
規定 Part Phone A 45 11 4 12 11 11 11 11 11 11 11 11 11 11 11 11	4.00	0.08	0.24	0.13	0.52	0.50	2.00
RAINAGE SECTIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
pe&Culvert X-Sect./Profiles	FOO	0.00	A 5 - 1				
	5.00	0.06	0.30			1.00	5.00
SERVICE TO THE SERVICE STATE OF THE SERVICE STATE STATE OF THE SERVICE STATE OF THE SERVICE STATE OF THE SERVICE S	0.00	0.00		The second second		0.00	0.00
SHTING	0.00	0.00	0.00	0.00	0.00	0.00	0.00
in Layout	0.00	0.001					
ecial Details		0.00		The Real Property lies and the least lies and the lies and the lies and the least lies and the least lies and the lies and t	The second name of	0.00	0.00
No. y . Phys. Lett. 1997.	THE OWNER WHEN PERSON NAMED IN	0.00	The second second		The same of the sa	0.00	0.00
OSION CONTROL	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ES	TIMATE	D MAN-	DAYS	
ROADWAY PLANS				De	sign		er Tech. /
	# OF	Project	Engineer		ineer	_	ADD
SHEET TITLE	# OF SHEETS	DAYS/		DAYS/		DAYS/	
Erosion Control Layout			TOTAL		TOTAL	SHEET	TOTAL
Erosion Control Details	4.00		0.52	0.75		1.50	6.00
ROADWAY CROSS SECTIONS	1.00	0.06	0.06	0.50	0.50	1.00	1.00
Main Roadway	40.00	NAME OF THE OWNER, THE					
Crossroads	19.00	0.06	1.14	0.38	7.22	0.75	14.25
Earthwork Balancing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LOUIS TO THE REAL PROPERTY OF THE PROPERTY OF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
The state of the s	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUB-TOTAL	70.048						
	/2.64		5.71		31.96		68.60
REVIEW MEETINGS							
Design Criteria/Kickoff	annumum.						
30% Review			1.00		1.00		1.00
60% Review			0.00		0.00		0.00
90% Review			2.50		2.50		1.50
			2.50		2.50		1.50
Stormwater Permits	THE STATE OF THE S						
Drainage Report					2.00		1.50
			1.00		1.50		1.50
Cost Estimates	All III III III						
Design Hearing	-//////////////////////////////////////		0.75		1.00		1.00
	~ <i>UIIIIIIIIIIIIIIII</i>		0.00		0.00		0.00
型数 医整胎性 第二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十	Allillilli	MINNE.	0 00 1				
相位10年14月4日中国第二十二日本中国			0.00		0.00		0.00
THE RESERVE RESERVED TO SERVED TO SERVED TO SERVED TO SERVED THE SERVED TO S			0.00		0.00		0.00
SUB-TOTAL	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		0.00		0.00		0.00
			8.75		10.50		8.00
OTAL MAN-DAYS	HIHIHIHI		44.40				
			14.46		42.46		76.60

All Cost per ts Sheet Total \$ 1.00 \$ 51 \$ 1.00 \$ 1.
Cost per Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ \$ \$ \$ \$ \$ \$ \$
Sheet Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ production C \$ 2,445
Sheet Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ production C \$ 2,445
Cost per Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ \$ \$ \$ \$ \$ \$ \$
Cost per Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ \$ \$ \$ \$ \$ \$ \$
Cost per Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ \$ \$ \$ \$ \$ \$ \$
Cost per Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ \$ \$ \$ \$ \$ \$ \$
ts Sheet Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ production C \$ 2,445
ts Sheet Tota \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ \$ production C \$ 2,445
\$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 1.00 \$ 51 \$ 12.50 \$ 912 \$ production C \$ 2,445
\$ 1.00 \$ 51. \$ 1.00 \$ 51. \$ 12.50 \$ 91.2 \$ production C \$ 2,445
\$ 1.00 \$ 51° \$ 12.50 \$ 912 \$ \$ production C \$ 2,445
\$ 12.50 \$ 912 \$ \$ production C \$ 2,445
\$ production C \$ 2,445
production C \$ 2,445
Total
Total
S
THE SHALLES
Total
\$
Total
\$
penses \$ 2.445.
penses <u>\$ 2,445.</u>
)

Project No.				
Project Name Imp. Hwy. 431 @ Sutton Rd.	Caldwell I	n Old Big C	ove Pd	and Disinguism
Description Grade, Base, and Pavement		in, old big c	ove Ru.,	and Plainview
Scope of Work Design of Auxillary Lanes/ Wi	idening alc	ng Hyay 421		
Project Length 1875 LF +/-	donning and	nig 11wy. 431		
C.O.H. Project Engineer Chris McNeese			··	
Engineering Consultant Goodwyn, Mills and Cawood,	Inc			
ree Propo	sai (Fie	ld Survey)		
PERSONNEL COST				
Г		Daily Rate	7	
	Man-davs	@ 8hrs/day	1	
Toject Engineer	0.00	\$ 1,360.00	\$	
Environmental Scientist	0.00	\$ -	\$	
Engineer Tech. / CADD		\$ 600.00		
Clerical	0.00			
		Sub-Total	\$	
SUB-CONSULTANTS (attach man day \$ 600 FDOM				
SUB-CONSULTANTS (attach man-day & fee FROM each sub AST Consulting & Contracting, LLC, Sharon Thompson, CCA, C	-consulta	nt; show to	al fee fo	r each here)
SEE ATTACHED)	PESC		\$	12,640.00
			\$ 3,22	anturilla jun sin
Figure 1 and 1 of the second s	Terror State of		\$1340	3.4%。形形。配置關
BANK CONTRACTOR OF THE PROPERTY OF THE PROPERT			\$	問題的影響
Carlotte and the second			\$	的。 第二章
ubconsultant Administration Expense (5%)	15公司的		\$	自己,他们的第一 版
		Sub-Total	\$	632.00
		Sub- i Otal	\$	13,272.00
	TOT	AL LABOR	\$	13,272.00
				13,414.00

Project No.
Project Name Imp. Hwy. 431 @ Sutton Rd. Caldwell Ln., Old Big Cove Rd., and Plainview D
Description Grade, Base, and Pavement
Scope of Work Design of Auxillary Lanes/ Widening along Hwy. 431
Project Length 1875 LF +/-
C.O.H. Project Engineer Chris McNeese
Engineering Consultant Goodwyn, Mills and Cawood, Inc.

Enviromental Task	Project Engineer	Environment al Scientist	Engineer Tech. / CADD
Field Reconnaissance			0, (00
Data Review	0.00	0.00	0.00
Report Preparation	0.00		0.00
Report Review	0.00		0.00
Drawings	0.00		0.00
Final Report	0.00	0.00	0.00
The same of the sa	0.00	0.00	0.00
A THE PROPERTY OF THE SECOND OF THE PROPERTY O	0.00	0.00	0.00
The state of the s	0.00	0.00	0.00
125 T. 16 1 14 15 15 15 15 15 15 15 15 15 15 15 15 15	0.00	0.00	0.00
The transfer of the state of th	0.00	0.00	0.00
THE RESERVE OF THE PARTY OF THE	0.00	0.00	0.00
· 1 1000 100 100 100 100 100 100 100 100	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00
IOIALS	0.00	0.00	0.00

					· · · · · · · · · · · · · · · · · · ·
Project Name Imp. Hwy. 43	1 @ Sutton Rd. C	aldwell Ln	. Old Big (Cove Rd a	nd Plainvie
Description Grade, Base,	, and Pavement		, big (i tu., a	id i dilivie
Scope of Work Design of Au	xillary Lanes/ Wid	1			
Project Length 1875 LF +/-					
C.O.H. Project Engineer Chris McNe	ese				
Engineering Consultant Goodwyn, Mil	lls and Cawood, Ir	nc.			-
Out-of-pocket	et Expenses (l	Envirom	ental)		
PRINTING / REPRODUCTION COST					
Type of printing/reproduction	# of Sets	Sheets per Set	Total Sheets	Cost per Sheet	Total
	0	0	0	\$ id=	\$ -
	0	网络 086元	0	\$ -	\$ -
	0	0	0	\$ 1414	\$ -
	0	0	0	\$ -	\$ -
	0	0	0	\$ -	\$ -
The state of the s	MARKET CARLES	Particular and larger a	_	\$ - duction C	\$ -
Communication Cost (telephone, fax, etc.)	rio la como di Manda di Si	CANADA NA	WHATE BEING		Total
	Secretary advantages and better detection by the Child				
ostage Cost (overnight, stamps, etc.)					Total
Postage Cost (overnight, stamps, etc.)		Particular Miles			Total
Postage Cost (overnight, stamps, etc.) Other (provide description on next line)					
					Total
	Total O	ut-of-pock			\$ Total
	Total O	ut-of-pock			Total
Other (provide description on next line)	Total O	ut-of-pock			Total
Other (provide description on next line)	Total O	ut-of-pock			Total
Other (provide description on next line)	Total O	ut-of-pock			Total
Other (provide description on next line)	Total O	ut-of-pock			Total
Other (provide description on next line)	Total O	ut-of-pock			Total
Other (provide description on next line)	Total O	ut-of-pock			Total

GEOTECHNICAL SERVICES

GEO SOLUTIONS, L.L.C.

Geotechnical Engineering and Materials Testing Services

May 8, 2012

Goodwyn, Mills and Cawood 7 Town Center Drive, Suite 201 Huntsville, Alabama 35806

Attention: Mr. Eric Lane, P.E.

Subject: Proposal for Geotechnical Engineering Services

Improvements to US Highway 431 and Intersections with Old Big Cove Road

Caldwell Lane and Sutton Road

Huntsville, Alabama Proposal No.: G-12-055

Dear Mr. Lane:

As requested we are pleased to submit a proposal for geotechnical engineering services on the subject project. To aid in the preparation of this proposal, we have discuss the project with you, reviewed the information provided and reviewed current conditions at each of the subject intersections. This proposal presents a recommended scope of services, fee consideration and schedule to complete the proposed services.

Proposed Construction

The subject project will include improvements to the intersections of Highway 431 with Old Big Cove Road, Caldwell Lane and Sutton Road. Improvements at each intersection varies but in general will typically include the addition of left hand turn lanes, right hand turn lane radius improvements and possibly acceleration lanes. Some plaining and overlaying is also possible.

Scope of Services

A subsurface exploration for the improvements will be performed in general accordance with the applicable requirements of ALDOT, BMTP-390, as well as the City of Huntsville Standard Specifications. The following services are proposed:

Roadway Investigation

- Review of available geological literature including published geological maps.
- Subsurface exploration consisting of the excavation, logging, and sampling of approximately four borings at each intersection. The borings will be drilled to a depth of 10 feet below the proposed finish grade elevation or auger refusal, whichever is encountered first. The borings will include Standard Penetration Testing at selected intervals.

May 8, 2012 Page 2

- Pavement coring at two locations on Caldwell Lane and one location at Old Big Cove Road. The existing asphaltic concrete and basestone sections will be measured and documented.
- Traffic control flagmen will be required when drilling within the existing road limits.
- Laboratory testing will be performed on representative soil samples. At this time
 we anticipate testing will include moisture content, Atterberg limits, particle size
 gradation and a resilient modulus test.
- Upon the completion of the field exploration, laboratory testing and data analysis, a written report will be prepared. The report will address the roadway issues including site and subgrade preparation, earthwork recommendations, undercutting requirements, recommendations for fill slope construction, dewatering requirements, a recommended pavement section and other soil related considerations.

Estimated Fee

Our fee for the services proposed will be on a lump sum basis. Our lump sum fee will be \$8,000.00.

Schedule

Based on our current schedule, we anticipate we can begin field services within four to five days of receiving authorization to proceed. Fieldwork is expected to take two days and laboratory testing an additional three to four weeks. Written reports would be submitted for review four to five weeks after completion of laboratory testing.

Closing

We appreciate the opportunity to present this proposal to you. If you have any questions regarding our proposed scope, please call.

Respectfully submitted, GEO Solutions, L.L.C.

William T. Kennard, P.5

Partner

Distribution: (1) Addressee

Attachments: Proposal Authorization Sheet

Terms and Conditions

SIGNAL DESIGN AND WARRANT ANALYSIS

U.S. Highway 431 Improvements Traffic Signal Design Huntsville, Alabama

Scope of Work Traffic Signal Design U.S. Highway 431 Improvements Old Big Cove Road/Old Big Cove Road Extension Caldwell Lane Huntsville, Alabama

Traffic Signal Warrant Study

The Consultant will conduct a traffic signal warrant study for the intersection of U.S. Highway 431 at Caldwell Lane in Huntsville, Alabama. The study process to be followed to undertake the traffic signal warrant study includes:

- 1. Collect traffic count information for the study intersection as required to complete the study process;
- 2. Establish the criteria for traffic signal evaluation;
- 3. Conduct a traffic signal warrant evaluation for existing conditions for the study location;
- Prepare documentation to reflect current signal warrants for the study location in a format required by ALDOT;
- 5. Submit a "Draft" of the report to the Client/Owner for review and comment;
- 6. Conduct a telephone conference with the Client to discuss the findings of the study efforts;
- 7. Prepare documents for transmittal to ALDOT; and
- 8. Coordinate ALDOT review of the study document.

The final study report document will be provided in draft formal (.pdf) for review and final comments. Upon receipt of comments from the Client and City, the Consultant will publish a "final" version for the study report. Six (6) copies of the report document will be submitted to ALDOT for their review. Skipper Consulting will work with ALDOT during their review of the study. Approval of the study by ALDOT is not guaranteed by Skipper Consulting.

Traffic Signal Design

Intersections to be included in the traffic signal design effort will include:

- U.S. Highway 431 at Oid Big Cove Road/Old Big Cove Road Extension
- U.S. Highway 431 at Caldwell Lane

The Consultant would initiate the design portion of this project by discussing the parameters of the signal design with the City of Huntsville and the Alabama Department of Transportation. Following these discussions, the signal design would be undertaken. It is assumed that base mapping of existing and proposed conditions will be provided by the Client. This base mapping should include roadway geometric features, stripling, underground and overhead utilities, storm drainage, right of way, and easements and shall be provided in either AutoCAD or Microstation format.

Design efforts for the project will be undertaken using procedures and specifications consistent with the latest Federal Aid plan standards of the Alabama Department of Transportation and specifications as provided by the City. Design efforts would include:

- Signal phasing and timing.
- Research applicable Clty and ALDOT specifications.
- Determine appropriate signal notes.
- Determine equipment and installation details.

U.S. Highway 431 Improvements Traffic Signal Design Huntsville, Alabama

The plan assembly would be prepared in federal aid format and include applicable traffic signal notes, legend, signal plans, applicable detail sheets, striping modifications for the signalized intersection, and quantities. A construction cost estimate will also be prepared.

Plans shall be prepared for the PS&E pian submittal. The Consultant will attend the applicable portion of the PS&E review and address all plan review comments received from ALDOT from the PS&E and subsequent reviews. Cost estimates shall be updated for each review as necessary.

The Consultant shall provide one set of paper copies for each plan review and one set of mylars for the Office Engineer submittal. Electronic files shall be provided as requested by the Client, in either AutoCAD or Microstation format. Electronic files and paper copies of the estimate shall be provided with each plan review.

Items Specifically Excluded from the Scope of Work

All work tasks which are not included in the scope are excluded. Work tasks which are specifically excluded include, but are not limited to, the following:

- Surveying
- Geotechnical investigation
- Pole design
- Pole foundation design
- Permitting

10:57 AM

Project No.	
Project Name	U.S. Highway 431 Improvements
Description	Old Blg Cove Road and Caldwell Lane
Scope of Work	Traffic Signalization
Project Length	A Common
C.O.H. Project Engineer	
Engineering Consultant	Skipper Consulting

GRAND TOTAL OF FEE PROPOSAL

	Labor Cost	Out-of-pocket Expenses	Fac
Corridor Study	\$0.00		Fee
Field Surveys			\$0.00
	\$0.00	\$0.00	\$0.00
Preliminary Roadway Plans	\$0.00	\$0.00	\$0.00
Preliminary Bridge Plans	\$0.00	\$0.00	\$0.00
Right-of-Way Map, Tract Sketches and Deeds	\$0.00	\$0.00	\$0.00
Roadway Plans	\$13,580.00	\$0.00	\$13,580.00
Bridge Plans	\$0.00	\$0.00	
Drainage Plans	\$0.00		\$0.00
Sanitary Sewer Plans		\$0.00	\$0.00
	\$0.00	\$0.00	\$0.00
Environmental	\$0.00	\$0.00	\$0.00
GRAN	ID TOTAL FEE		\$13,580

LABOR RATES	Effective Time Period	Constitution of the Consti
Classification	Hourly Rate	Assigned Personnel
Project Engineer	\$125.00	Richard Caudle
Environmental Scientist	The state of the s	The state of the s
Design Engineer	The second secon	The state of the first term of the state of
Engineer Tech. / CADD	\$65.00	Ty Cosby
Clerical	\$35.00	Anlta Osbourne
PLS	TOTAL STATE OF THE	Zijika Ospodine
Survey Crew	A SERVICE STATE AND A SERVICE AND ASSESSMENT OF THE SERVICE AND AS	The control of the first section of the section of

President
Position/Title

Project No.	Carrier Control
Project Name U.S. Highway 431 Improvements	
Description Old Big Cove Road and Caldwell Lane	
Scope of Work Traffic Signalization	
Project Length	
C.O.H. Project Engineer	
Engineering Consultant Skipper Consulting	

			ES	TIMATE	I-NAM C	DAYS	
ROADWAY PLANS				De	sign		er Tech. /
I CONDVIATI LANG			Engineer		ineer		ADD
OUEET TITL	# OF	DAYS/		DAYS/		DAYS/	
SHEET TITLE	SHEETS		TOTAL	SHEET	TOTAL	SHEET	TOTAL
TITLE SHEET	0.00	10.0	0.00	0.00	0.00	0.00	0.00
INDEX SHEET	0,00	0.00	0.00	0.00	0.00	0.00	0.00
PROJECT NOTE SHEET	1.00		0.25	0.00	0.00	0.25	0.25
PLANS LEGEND	1.00	0.25	0.25	0.00	0.00	0.25	0.25
TYPICAL SECTIONS							
Main Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cross Roads	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Detour & Misc.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ramps	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUMMARY SHEET			200			410.00	0.00
Main Summary	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUMMARY BOX SHEETS					5.00	0.001	0.00
Roadway Pipe	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Culvert Extension, New Culvert	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bridge Culvert Extension, New Bridge Culvert	0.00	0,00	0.00	0.00	0.00	0.00	0.00
Guardrail	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slope Paving (Under Bridges)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Side Drain Pipe	0,00	0.00	0.00	0.00	0.00	0.00	0.00
Signing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base & Pavement	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Striping & Pavement Markings	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Curb & Gutter	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bridge End Slabs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roadway Lighting	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sidewalk	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slope Paving (Ditches)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ditch Summary	0,00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Safety Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Retaining Wall	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Misc. Boxes	1.00	0.50	0.50	0.00	0.00	1.00	1.00
Frosion Control	0.00	0.00	0.00	0.00	0.00	0.00	
The state of the s	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ES		D MAN-		
ROADWAY PLANS	1	Project	Engineer		sign Jineer		er Tech ADD
	# OF	DAYS/		DAYS	111001	DAYS/	עטט
SHEET TITLE	SHEETS	SHEET	TOTAL		TOTAL		TOTA
PLAN & PROFILE		 			1101712		1017
Main Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.
Crossroads	0.00		0.00			0.00	0.
Detours	0.00		0.00			0.00	0.
Retaining Walls	0.00	0.00	0.00			0.00	0.
DAVING LAVOUR	0.00	0.00	0.00	0.00		0.00	0.0
PAVING LAYOUT							11851 865
Main Roadway	0.00		0.00	0.00	0.00	0.00	0.0
Crossroads Intersections	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Intersections	0.00	0.00	0.00	0.00	0.00	0.00	0.0
INTERCHANGES	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Geometrics	2012-221						
Ramps Profiles	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Site Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Cross Sections	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Signing	0.00	0.00	0.00	0,00	0.00	0.00	0.0
	0.00	0.00	0.00	0.00	0.00	0.00	0.0
RAFFIC CONTROL	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Sequence of Construction	0.00	0.00	0.00				
Summary & notes	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Typical Section Sketches	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Signing Layout	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Special Drawings	0.00	0.00	0.00	0.00	0.00	0.00	0.00
The control of the state of the	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRIPING & SIGNING	0.00	0.001	0.001	0.00	0.00	0.00	0.00
igning, Striping & Pavement Markers Layout	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A CONTROL OF THE PROPERTY OF T	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IGNALIZATION		0.30	0.00	0.001	0.00	0.001	0.00
ignal Layout (1 per site)	2.00	2.50	5.00	0.00	0.00	1.50	3.00
raffic Analysis	0.00	0.00	0.00	0.00	0.00	0.00	0.00
raffic Counts (1 per site)	1,00	0.00	0.00	0.00	0.00	2.00	2.00
gnal Warrant Analysis (1 per site)	1.00	1.00	1.00	0.00	0.00	2.00	2.00
pecial Details	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Service and the Company of the Compa	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FILITY SHEETS		1. 11.1-					
ility Sheets	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TAINA OF OFFICE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAINAGE SECTIONS		00000				- 10 m	
pe&Culvert X-Sect./Profiles	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Company of the last of the state of the stat	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHTING	0.00	0.00	0.00	0.00	0.00	0.00	0.00
an Layout	W-02 0 0-1						
ecial Details	0.00	0.00	0.00	0.00		0.00	0.00
Colai Dalaiis	0.00	0.00	0.00	0.00	The second name of the second	0.00	0.00
OSION CONTROL	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ES	TIMATE	I-NAM D	DAYS	
ROADWAY PLANS	İ			De	sign		er Tech. /
1 10/12/11/0	1,, 0-		Engineer		ineer		ADD
SHEET TITLE	# OF	DAYS/		DAYS/		DAYS/	
Erosion Control Layout	SHEETS					SHEET	TOTAL
Erosion Control Details	0.00		0.00			0.00	0.00
ROADWAY CROSS SECTIONS	0.00	0.00	0.00	0.00	0.00	0,00	0.00
Main Roadway	* History and A						
Crossroads	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Earthwork Balancing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Earth Work Dalancing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
and the state of t	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUB-TOTAL	7.008		7.00				
	7.00		7.00		0.00		8.50
REVIEW MEETINGS							
Design Criteria/Kickoff	HIHIHII.	IIIIIIII.	0.00	dillillilli	0.00		CORPORT AND A
30% Review			- 15 4		0.00		0.00
60% Review			0,00		0.00		0.00
90% Review			0.00		0.00		0.00
			1.00		0.008		1.00
Stormwater Permits	HIHIHIII.	WIIIII	0.00	WIIIII	0.00	mm	20122 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Drainage Report			0.00		0.00		0.00
Cost Estimates	Allinininin		71				V.90
Design Hearing			0.50		0,00		0.00
- seign riouring			0.00		0.00		0.00
A STATE OF THE PROPERTY OF THE	WHITE	MININ	0.00		0.00	mmn.	0.00
The state of the s			0.00		0.00		0.00
			0.00	-	0.00		
SUB-TOTAL			1.50		0.00		1.00
OTAL MAN-DAYS			100				
			8.50		0.00		9.50

Project No.				
Project Name U.S. H	lighway 431 Improvements			
Description Old B	g Cove Road and Caldwell Lane			
Scope of Work Traffic	Signalization			
Project Length	- G. (411-6110))			
C.O.H. Project Engineer				
Engineering Consultant Skippe	or Consulti			
	ee Proposal (Roadway Plan	is)		
PERSONNEL COST				
PERSONNEL COST				
		Daily Rate @		
Project Engineer	Man-days	8hrs/day	1	
Design Engineer	8.50	\$ 1,000.00	\$	8,500.00
Engineer Tech. / CADD	0.00		\$	
Clerical	9.50		<u> </u>	4,940.00
	0.50			140.00
		Sub-Total		13,580.00
SUB-CONSULTANTS (attach man-day	& fee FROM each out computer	A		
	a iso i itom bacii sub-consultan	t; snow tota	fee for	each here)
the state of the s	20 17 18 18 18 18 18 18 18 18 18 18 18 18 18			Walang To later the t
Total Livery of the Mount of the Control of the Con	artempted by a fill the steel time Capital Steel		\$	Little School Co. The
Subconsultant Administration Expense (5%)		\$	Carrier State (March 4 11)
		ub-Total	\$	
		-10[0]	Ψ	-
	TO1	AL LABOR	\$	13,580.00
			· ·	

ENVIRONMENTAL SERVICES (CATEGORICAL EXCLUSION)

AST Consulting & Contracting, LLC

March 9, 2012

Mr. Eric Lane, P.E. Goodwyn, Mills, and Cawood 7 Town Center Drive, Suite 201 Huntsville, AL

Re:

Proposal for Environmental Services
Hwy 431 Improvements at Sutton Road,
Caldwell Lane, and Old Big Cove Road
Huntsville, Alabama
ASTCC Proposal No. ACC-1152

Dear Mr. Lane:

As requested, please find attached the Man-day estimate for conducting a Checklist Categorical Exclusion for the above referenced project.

The scope of services will include addressing the required items in the Alabama Department of Transportation's Categorical Exclusion Checklist, including field assessments, data review, correspondence with applicable state and federal agencies, submittal of supporting data, and attendance of required meetings. At this time, a Phase I Cultural Resources Survey or Hazardous Materials Survey are not expected to be applicable.

AST Consulting and Contracting, LLC recommends that the City of Huntsville obtain approval from the FHWA that the Checklist Categorical Exclusion and this Scope of Services will satisfy the FHWA's requirements for this project. If air analysis, noise analysis, permitting or other additional studies are required or if a full Categorical Exclusion is required, these services can be performed as an ammendment to the original scope of services and contract.

Sincerely,

AST Consulting and Contracting, LLC Sharon G. Thompson, CCA, CPESC

Managing Member/Senior Environmental Scientist

11:17 AM

Project No.	
Project Name	HWY 31 Imp. @ Sutton Road, Caldwell Lane, and Old Big Cove Road
Description	Page 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Scope of Work	Categorical Exclusion Checklist
Project Length	1800 LF
C.O.H. Project Engineer	Chris McNeese
Engineering Consultant	AST Consulting and Contracting, LLC/Sharon G. Thompson
	garage Leorgia Condition G. Thompson

GRAND TOTAL OF FEE PROPOSAL

ł			
Corridor Ottodo	Labor Cost	Out-of-pocket Expenses	Fee
Corridor Study	\$0.00		
Fleid Surveys		\$0.00	\$0.00
Preliminary Roadway Plans	\$0.00	\$0.00	\$0.00
Preliminary Bridge Plans	\$0.00	\$0.00	\$0.00
Right-of-Way Map, Tract Sketches and Deeds	\$0.00	\$0.00	\$0.00
Roadway Plans	\$0.00	\$0.00	\$0.00
Bridge Plans	\$0.00	\$0.00	\$0.00
Drainage Plans	\$0.00	\$0.00	\$0.00
Sanitary Sewer Plans	\$0.00	\$0.00	\$0.00
Environmental	\$0.00	\$0.00	\$0.00
	\$11,640.00	\$1,000.00	\$12,640.00
GRAN	ID TOTAL FEE		\$12,640

LABOR RATES	Effective Time Period	
Classification	Hourly Rate	Assigned Personnel
Project Engineer	\$90.00	
Environmental Scientist	\$65.00	Sharon G. Thompson/Sr. Env. Scientist
Design Engineer	STATE OF THE PARTY OF THE PARTY.	Amanda Romans/Scott Jackson
Engineer Tech. / CADD	\$45.00	Jennifor Martin / Travel Oct.
Clerical	\$35.00	Jennifer Martin/Env. Scientist, Biologist
PLS	The Section Active Property Control Con-	Gena Kimberly
Survey Crew		a perchasion of the later and the

thempson.

3/9/2012

Signed

Date

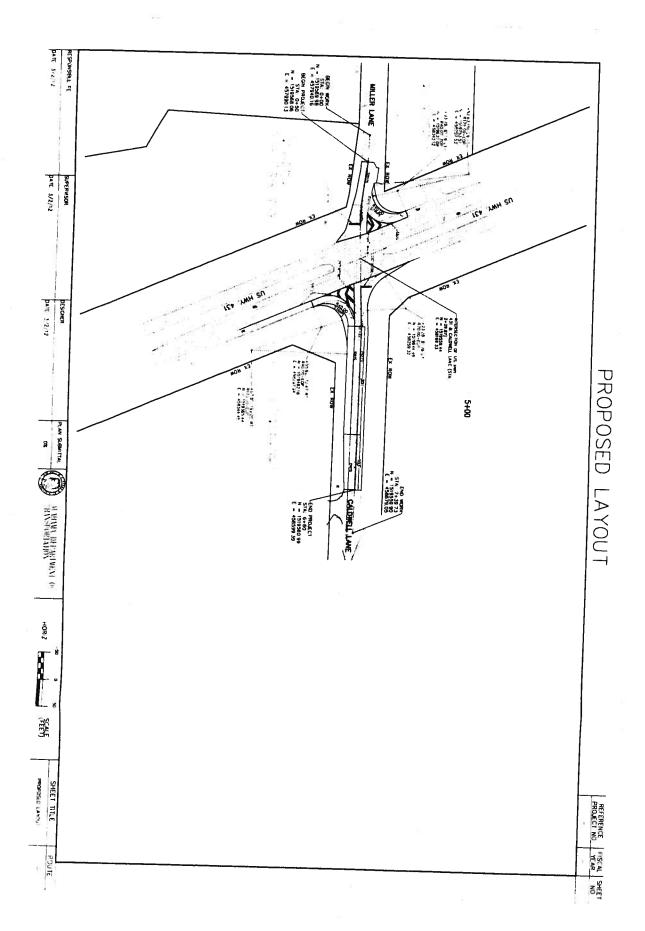
Managing Member, Sr. Env. Scientist
Position/Title

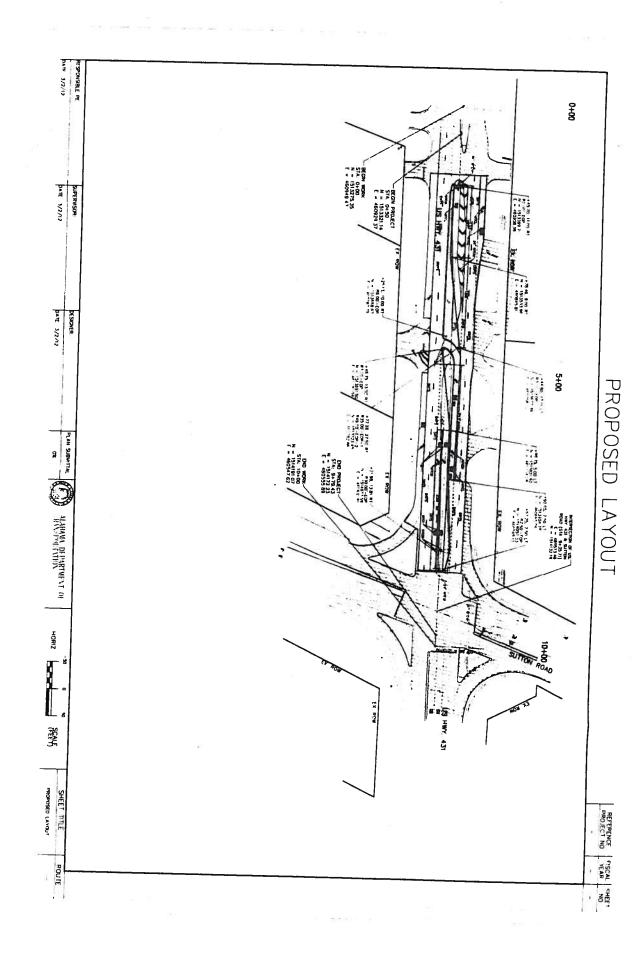
Project No.			
Project Name HWY 31 Imp. @ Sutton Road, Caldwell Lane, and Old Bin Cove Bond	ane, and Old B	Sign Cove Dood	
Description	200	and cove Road	
Scope of Work Categorical Exclusion Checklist			
Project Length 1800 LF			
C.O.H. Project Engineer Chris McNeese			
Engineering Consultant Act Consultant			
Social April Consulting and Contracting, LLC/Sharon G. Thompson	aron G. Thomp	son	
Fnviromental	Project	Environment	Engineer Tech /
Task	Engineer	al Scientist	CADD
Field Reconnaissance			
Data Review	1.00	1.00	0.50
Report Preparation	1.00	5.00	15000
Report Review	1.00	4.00	1.00
Drawings	0.50	00.0	0.00
Final Report	0.50		3.00
Approximate the second	0.50	1.00	0.50
	00:00	00:0	00.0
	000		0.00
	000	00.0	0.00
	0.00	00.0	0.00
	0.00	00.00	0.00
	000	00.0	00.0
OTALS	0.00	00.0	00.0
	4.50	12 00	00 0

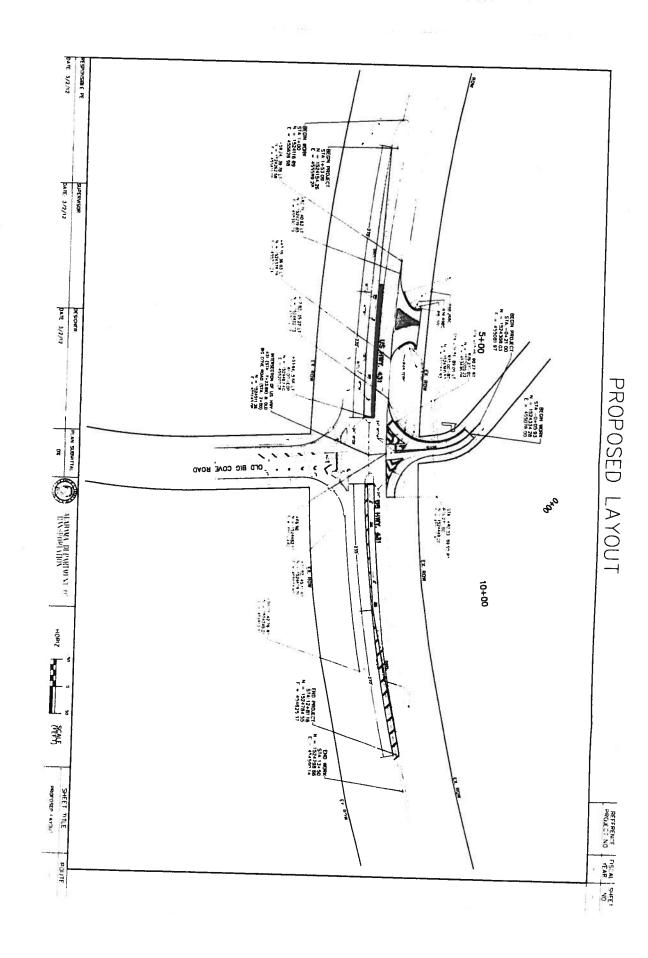
11:18 AM

Project No.	· · · · · · · · · · · · · · · · · · ·		1174		3.004		
Project Name HWY 31 I	mp. @ Sutton Road,	Caldwell L	ane, and C	Old B	ia Cov	e R	oad
Description						3.1	
Scope of Work Categoric	al Exclusion Checklis						
Project Length 1800 LF				199			-
C.O.H. Project Engineer Chris Mc							
Engineering Consultant AST Cons	sulting and Contractin	g, LLC/Sha	aron G. Th	omp	son		
Out-of-po	cket Expenses (nvirom	ental)				
PRINTING / REPRODUCTION COST				_	~	-	
Type of printing/reproduction	# of Sets	Sheets per Set	Total Sheets		st per heet	Γ	Total
with the said of t	10	100	1000	\$	0.15	\$	150.00
建设是理解的原则是是否是否是实现	0	Ó	0	\$	表色素	\$	-
	0	0	0	\$	美譜的	\$	_
	時後組織 1885 O St	0	0	\$		\$	-
	0	0	0	\$		\$	
	16 July 18 0 Mg	0	0	\$	AL SALL	\$	
· · · · · · · · · · · · · · · · · · ·		Total Print	ing/Repro	oauc	tion C	\$	150.00
Communication Cost (telephone, fax, etc	c.)						Total
STATE OF STA	<u> </u>	知問情的				\$	250.00
Postage Cost (overnight, stamps, etc.)							Total
网络克莱尔克斯克尔克斯克斯克克克斯克斯克克克克克斯克克克克克克克克克克克克克克克克	- research of the last	CONTRACTOR OF THE PARTY OF THE	i distributi			SH	100,00
Other (provide description on next line)				-			Total
Trip expenses and field su	pplies, equipment re	ntal	3			\$10	500.00
							-
	Total O	ut-of-pock	et Expens	ses		\$	1,000.00
Comments:							·
		Povale Selectado Par	Mark Salahan	restati	THE PERSON OF	97,830/e	666 N2575522200440100
				145			
4. 第二次的 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.							

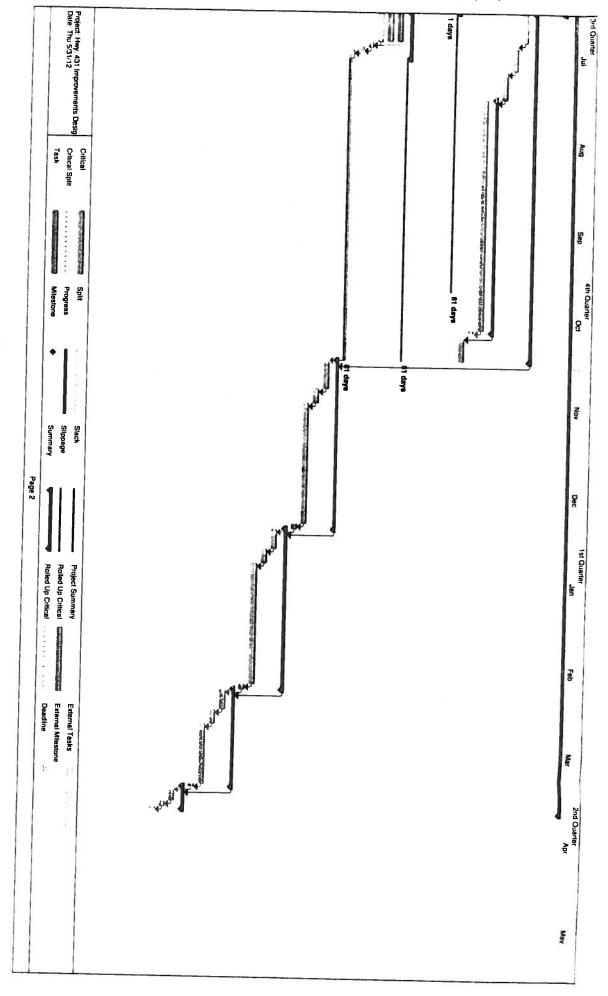
Project No.		
Project Name HWY 31 Imp. @ Sutton Road Caldwell I are and Old Bill Delegation	id rio puo oue i llempji	
Description	idaneii Laile, aliu Old Big	Cove Road
Scope of Work Categorical Exclusion Checklist		
Project Length 1800 LF		
C.O.H. Project Engineer Chris McNeese		
Engineering Consultant AST Consulting and Contracting, LLC/Sharon G. Thompson	LLC/Sharon G. Thompso	9
Fee Proposa	Fee Proposal (Field Survey)	
PERSONNEL COST		
	Daily Rate	
	@ 8hrs/day	
Environmental Scientist	/20.00	3,240.00
Engineer Tech. / CADD	\$ 520.00	6,240.00
Clerical	\$ 360.00	2,160.00
		•
	Sub-Total \$	11,640.00
SUB-CONSULTANTS (attach man-day & fee FROM each sub-consultant: show total fee for each hands	Sultant; show total fee	for each hear
	8	O cacil nere)
	9 G	
	S	
	1 S	のは、日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日
	\$	ののというないできます。
Subconsultant Administration Expense (5%)	69	
(NO) DOING	S	
	Sub-Total \$	-
	TOTAL LABOR	44 640 00
		00.040.11







Pry Act in processes being Price	Propresentable Deligh Prop			Concinie	- 1		Page									
Real-Processing Design Real-Processing Rea	Improvement Deligh Calcal Places Calcal			Deadline		Rolled Up (Summary	•	and de de						
Received Comments Received	Improvement Design			External Tasks		Project Sur		Slippage	**********		***************************************		overnents Desig	5/31/12	ife Th	
The Still Improvement beings On Charles Teaching Lord-Co-Cill Meaning Contact for Scheduling Contact for Sc	Concluse Prof. Disease; Prof. Disease; Prof. Conclusion Prof. (Col. Interior) Prof. Col. Interior Prof. (Col. Interior) Pro					-				-						
Procedure Processor Proc	Concept Part Improvement Design Daziero Stat From According Sections Productions Produ			;												
Procedure Design Procedure Design Procedure Design Procedure Design Procedure Design Procedure Design D	Company Part Department Design Company			2 4	NA SA	Thu 4/4/13										
Proposition Control	Companies Comp			39	NA 42	Ward ACTURES	_				DOT and COH	inal Submittal to AL	ı	9	3	
Procedure of Schooling Load Collection	Concessor Pay 41 Improvement Design			35	*	ELAPA BULL	_			and COH on OC	comments from ALDOT	repare a Final Cons	יים פיים	0.	2	
Processor Charles Ch	Concept Pay All Improvements the sign Pay All Improvements the sign Pay All Improvements (Act of Nacing) Pay All Im			& !	NA 41	7ed 3/27/13					etruction Plans	ration of Final Cor		<u>چ</u>	4	
Proportion Design Proportion Proporti	Company Part			37 8	NA 39	Tue 3/26/13					Review Meeting	anduct QC Design	C	9 5	6	
Procedure Proc	Company Comp			3 %	NA 38	Tue 3/5/13	_			_	id COH (including review	ubmit to ALDOT an	o (ra	9 9	3 S	
Presenting Scheduling by On Kick-Off Meeting 27 Kick-Off Meeti	Conclusion May All Improvements Design			. 8	NA 37	Thu 2/28/13					ruction Set for Review	repare a QC Const	יטר י	3 %	<u>ج</u> و	
Process Proc	Complete Phyl All Improvements Design Complete			ដ	NA 36	Fed 3/27/13	_			and COH on Be .	comments from ALDOT	leview and address	ם	,	3 %	
OF A	Conclusion Hay All Improvements beign Conclus Fresh Actual Fresh Successory Fresh Fresh Successory Fresh Fresh Successory Fresh Fresh Successory Fresh			ສ	NA CA	Thu 2/21/13		~			itruction Plans	iration of QC Cons	Prepa	3	3 33	
Art Hey 431 improvements Design Or Proposition Scheduling for "Ack-Off Meming Or Proposition Scheduling for "Ack-Off	Conclusion Con			31	NA 33	Tue 2/19/13				ت	id COR (including review	Conduct PS & E De	0 1	۰,00	¥	
Fig. 1. Improvemental Design Fig. 1. Proposition of Chick-Off Menting Fig. 2. Conduct Off Kick-Off Menting Fig. 3. Conduct Off Kick-Off Menting Fig. 4. Conduct Off Menting Fig. 5. Conduct Off Menting Fig. 4. Conduct Off Menting Fig. 5. Conduct Off Menting Fig. 6. Conduct Off Menting Fig. 7. Conduct Off	Complete Private Insprovements Design Private Contract Contraction Private Contract			8	NA 32	Thu 1/3/13	E4 18672				onstruction Set for Revie	Submit to AI DOT at	w -	0.	23	
Presention of England Standy Controlled to Presention of England Standy Controlled S	Complete Preparation Design			25 (NA 35	Thu 2/21/19				and COH on 60°.	comments from ALDO	Tenere a DC # C C	ב מ	9	3	
Part	Consider Phy 431 Improvements Design Pri Act of Il Meeting Pri Condicti On, Kick of Il Meeting Pri Condicti			28.	NA 31	Tes 12/27/12					Construction Plans	Bratton of PS & E	rapa Frapa	3 3	9	
Proposition Design	Complete Park All Improvements Design Dualton Start Frach Actual Frach Stockston Predocesson Park All Improvements Design Predocesson Park All Improvements Design Predocesson Park All Improvements Start Park All Improvem			3 23	NA 29	ue 12/25/12				1	n Review Meeting	Conduct 60% Desig	٠,	9 9	5 0	
Properties Design Properties Design Properties Design Properties Design Des	Complete			2	NA 28	ue 11/13/12				₹.	nd COH (including revie	Submit to ALDOT a	"	, ,	8 2	
Price Hary Ast Improvements Design O'S. Proposition's Concluding to O's Kick-Oth Meeting O'S. Conduct O's Kick-Oth Meeting O'S. Pepting Meeting Meeting O'S. Conduct O's Kick-Oth Meeting O'S. Conduct O's Kick-Oth Meeting O'S. Pepting Meeting Meeting O'S. Conduct O's Kick-Oth Meeting O'S. Pepting Meeting Meet	Complete	î		ch	NA 30	Thu 11/8/12				and COH on 30%	struction Set for Review	Prepare a 60% Con			3 23	
Properties Part Properties Part Properties Part Par	Complete	+ **		23	NA 26	Mon 7/16/12				7 1000	natruction Plans	Review and address		9	8	
Offs. Heavy 431 Improvements Design 228 days File styling August Front August	Complete	534		20.21		Fri 7/13/12					In Review Meeting	Conduct 30% Desk		2 :	3	
O's Harty 431 Improvements besign 228 days Friends AUB FIRIADS NOCENTRICS of Producessors August FIRIADS August	Complete Proprovements Design Or Or Or Or Or Or Or O			7		Thu 7/12/12	Wed 7/11/12			.	ind COH (including revie	Submit to ALDOT a		ş Ç	2 2	
Properties Design Desig	Complete HHy,431 Improvements Design			17	NA 22	Tue 7/10/12	Sun 771/12	10 days		for Review	ary 30% Construction Se	Prepare a prelimina	_	9	8	
O'N Hay 431 Improvements besign 228 days Fried 491572 MAX Processors May Jun 3rd Quarter O'N Properation Scheduling for 0's Kick-Olf Meeting 16 days Fried 491572 MAX May Jun 3rd Quarter O'N Properation Scheduling for 0's Kick-Olf Meeting 1 days Fried 491572 MA May Jun 3rd Quarter O'N Properation Scheduling for 0's Kick-Olf Meeting 1 days Fried 491572 MA A A A O'N Field exploration and study 1 days Set 62012 MA A	Complete May 431 Improvements Design O'S Rick-Off Meeting O'S Rick-Off Meeting O'S Rick-Off Meeting O'S Conduct O'S Rick-Off Meetin	1		17	NA 22	Tue 7/10/12	Sim 77/72	10 days		•	ormation for adalysis	Construct profile in		9	21	
O'S Hey-431 Improvements Design O'S Hest-Off Meeting O'S Conduct O'S Kick-Off Meeting O'S Conduct O'S Conduct O'S Kick-Off Meeting O'S Conduct O'S	Complete Phys A31 Improvements Design Duration Start Finish Actual Finish Successors Predecessors	ممو		14,10,16	NA	Mon 7/16/12	Burn 771/72	16 days		•	al layout of improvement	Prepare geometrica		9 9	8 2	
DY. Hay 431 improvements Design OY. Fick Off Meeting OY. Fick Off Meeting OY. Frequenties Study (Categories Exclusion) OY. Fred exploration and Study (Categories Exclusion) OY. Fred exploration and study OY. Fred exploration OY. Report Preparation OY. Submittal to Participating Agencies for review OY. Receive Comments Final Report Preparation and Submittal OY. Fred oxignity agencies for review OY. Fred oxignity agency a	Complie P Hyy, 431 improvements Design O'S Hyy, 431 improvements Design O'S Conduct O'S Rick-OH Meeting O'S Feld expiration and study Feld expiration O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Feld expiration O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Feld expiration O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Feld expiration O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Feld expiration O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Feld expiration O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Feld expiration O'S Conduct O'S Rick-OH Meeting O'S Conduct O'S Rick-OH M				NA 19 20 21	Set 6/30/12	Thu 6/26/12	3 days		Bending union	leview Meeting	duct 30% Design F	Com	9	â	9
O'S Hey, 431 Improvements Design O'S Kick-Off Meeting O'S Conduct O'S Kick-Off Meeting O'S Environmental Study (Categorical Exclusion) O'S Frield exploration and study O'S Period Preparation O'S Submittal to Participating Agencies for review O'S Submittal to Participating Agencies for review O'S Receive Comments O'S Period Preparation and Study O'S Period Prepa	Complete N Hay, 431 Improvements Design O'S ICIK-CM Heeting O'S IC	11 days			NA 17	Wed 8/27/12	Friensy12	13 days		1	pographical drawing for	Prepare detailed to		3	17	-
O's Hwy,431 improvements Design O's Crick-Off Meeting O's Preparation/ Scheduling for O's Kick-Off Meeting O's Conduct O's Kick-Off Meeting O's Conduct O's Kick-Off Meeting O's Preparation Scheduling for O's Kick-Off Meeting O's Preparation and Study O's Field exploration and Study O's Field exploration and Study O's Report Preparation O's Submittat to Participating Agencies for review Review O's Report Preparation O's Report Preparation O's Submittat to Participating Agencies for review Review O's Final Report Preparation O's Perform Topographical Survey of improvement Sites along Hwy, 431 O's Perform Topographical Survey of improvement Sites along Hwy, 431 O's Perform basic control survey O's Perform basic	Combiele # Hwy.431 improvements Design O"s. Cleck-Off Meeting O"s. Conduct O"s. Kick-Off Meeting O"s. Field exploration and study O"s. Field exploration and study O"s. Field exploration and study O"s. Submittai to Participasting Agencies for review O"s. Submittai to Participasting Agencies for review O"s. Review O"s. Review Comments O"s. Review Comments Field Report Preparation and Stubnittai O"s. Perform Topographical Sturey of Improvement Sites along Hwy. 431 O"s. Perform Dasic control survey Dust Review O"s. Perform Dasic control survey Dust Review O"s. Perform Dasic control survey Dust Review O"s. Perform Topographical Sturey of Improvement Sites along Hwy. 431 1 days Fri 878712 NA 10 1 days Fri 878712 NA 11 1 days Fri 878712 NA				NA 17	Set 6/16/12	F# 6/15/12	13 days		ities	al field data including ut	Tie down property		9	6	200
O's Hwy.431 improvements Design O'K Ick-OH Meeting O's Checkuling for O's Kick-OH Meeting O's Conduct O's Kick-OH Meeting O's Field exploration and study O's Field exploration and study O's Report Preparation O's Submittal to Participating Agencies for review Report Preparation and Submittal O's Review O's O's Re	Complete 19 Hwy,431 improvements Design O'S. Hwy,431 improvements Design O'S. Circle-Off Meeting O'S. Circle-Off Meeting O'S. Conduct O'S. Kick-Off Meeting O'S. Conduct			ř	×	8af 6/30/12	FH BYIST2	16 days	•		rol survey	Perform basic conf		,	5 :	_
O'S Hwy.431 improvements Design O'K Kick-Off Meeting O'S Conduct O'S Kick-Off Meeting O'S Entironmental Study (Cetegorical Exclusion) O'S Feld exploration and study O'S Report Preparation O'S Submittal to Participating Agencies for review O'S	Complete Navy 431 improvements Design O'S Hwy, 431 improvements Design O'S Check-Off Meeting O'S Check-Off Meeting O'S Check-Off Meeting O'S Check-Off Meeting O'S Conduct O'S Kick-Off Meeting O'S			o	Z :	Mon 10/29/12	Mon 10/22/12	6 days		nt Sites along Hwy	el Survey of Improveme	form Topographic	Peri	3 5	i i	-
O'S Hwy.431 improvements Design O'S Hev.Off Meeting O'S Canduct O'S Kick-Off Meeting O'S Canduct O'S Kick-Off Meeting O'S Canduct O'S Kick-Off Meeting O'S Environmental Study (Categorical Exclusion) O'S Field exploration and study O'S Data Review O'S Submittal to Participating Agencies for review O'S Receive Comments	Combiel Way, 431 improvements Design O'S. Hay, 431 improvements Design O'S. Chr. Child. Off Meeting O'S. Chr. Child. Off Meeting O'S. Chr. Child. Off Meeting O'S. Conduct O'S. Kick. Off Meeting O'S. Conduct O'S. Kick. Off Meeting O'S. Chr. Child. Off Meeting O'S. Field exploration and study O'S. Pend off or off Meeting O'S. Report Preparation O'S. Submittail to Participating Agencies for review O'S. Receive Comments			;	N Z	Frt 10/19/12	F# 10/19/12	1 day			Iration and Submittal	Final Report Prepa		Ġ	รี่	_
O's Hwy.431 improvements Design O's Hwy.431 improvements Design O's Heating O's Rick-Off Meeting O's Prependion/Scheduling for O's Kick-Off Meeting O's Conduct O's Kick-Off Meeting O's Conduct O's Kick-Off Meeting O's Environmental Study (Categorical Exclusion) O's Field exploration and study O's Field exploration and study O's Pendion Preperation O's Submittal to Participating Agencies for review O's Report Review O's Review O's Report Review O's	Complete Navy 431 improvements Design O"A Havy 431 improvements Design O"A Circ. Lord Meeting O"A Conduct O"A Kick-Off Meeting O"A			60	NA 12	THE 10/18/12	Tue 7/31/12	60 days			ments	Receive Com		0.	=	_
O's Hwy.431 improvements Design O's Chick-Off Meeting O's Conduct O's Kick-Off Meeting O's Conduct	Comblete 1			7	NA 9	Ed torions	Tun 7/31/19	61 days		Maine		Review		0%	õ	_
O's Hwy.431 improvements Design O's Chick-Off Meeting O's Conduct O's Kick-Off Meeting O's Conduct	Complete 1			G)	NA 8	FH 7/20/12	Set 771172	10 days				Submittal to Park		3 :	9	_
O's Hwy.431 improvements Design O's Ick.OH Meeting O's O's Kick.OH Meeting O's Preparation' Scheduling for 0's Kick.OH Meeting O's Conduct 0's Kick-oH Meeting O's Conduct 0's Kick-oH Meeting O's Environmental Study (Categorical Exclusion) O's Field exploration and study O's Field explo	Complete 19 O's Hwy.431 improvements Design O's Confluct Ors Rick-Off Meeting O's O's Rick-Off Meeting O's Proprietion/ Scheduling for 0's Rick-Off Meeting O's Confluct O's Rick-Off Meeting O's Confluct O's Rick-Off Meeting O's Environmental Study (Categorical Exclusion) O's Field expiration and study D's Field expiration and study Double of the study	40		•	NA 7	Tue 7/10/12	Sun 7/1/12	10 days				Data Review		0.5	œ	
O's Hwy.431 improvements Design O's O's Kick-Off Meeting O's O's Kick-Off Meeting O's Preparation/ Scheduling for 0's Kick-Off Meeting O's Conduct 0's Kick-Off Meeting O's Conduct 0's Kick-Off Meeting O's Conduct O's Kick-Off Meeti	Complete 19 O's Hwy.431 improvements Design O's O's Kick-Off Meeting O's Preparation/ Scheduling for 0's Kick-Off Meeting O's Conduct O's	فهم		w	NA 2	Mon 10/29/12	Sun 771/12	97 days			and study	Field exploration a		9	4 6	
0% Hwy.431 improvements Design 0% O'K Kick-OH Meeting 0° Preparation/ Scheduling for 0° Kick-OH Meeting 16 days Fri 0/13/12 Saf 8/30/12 NA 0° Conduct 0° Kick-OH Meeting 15 days Fri 0/13/12 Saf 8/30/12 NA	Complete 19 O's Hwy.431 improvements Design O's O's Kick-OH Meeting O's O's Kick-OH Meeting O's Preparation State Of Meeting O's Conduct o's Kick-OH Meeting O's Conduct o's Kick-OH Meeting O's Conduct o's Kick-OH Meeting 15 days Ed.87872 NA				NA A	Set 6/30/12	Set 0/30/12	1 day			(Categorical Exclusion	vironmental Study	Env	9,	, Ci	
O's Hwy.431 Improvements Design O's O's Kick-Off Meeting O's O's Kick-Off Meeting O's O's Kick-Off Meeting O's NA Jun 3rd Quarter O's Artist Successors Predecessors O's O's Kick-Off Meeting O's O's College O's O's O's College O's	Complete 19 Ors Hwy.431 Improvements Design Ors Ors Kick-Off Meeting Ors				N	Set 9/30/12	E4 801872	15 days		eeting	duling for 0° Kick-Off N	Conduct 0% Kick		0,	4	_
Hwy 431 Improvements Design	Hwy.431 Improvements Design	Jun	May		\$	Thu 4413	Fri 97872	75 cays				NEK-On Meeting	Ş	9 5	ယ	
	Duration Start Finish	3rd Overfer		ecessors	war soccessors pred						esign	improvements D	7 Wy. 43		ν.	_



ATTACHMENT 2 - ALABAMA IMMIGRATION ACT - REPORT OF OWNERSHIP FORM

A.	General Information. Please provide the following	
=	Legat name(s) (include "doing business as", if app	Hicable): Goodwyn, Mills & CAwood I Inc
	City of Huntsville current taxpayer identification nu (Please note that if this number has been assigned should be listed on the renewal form.)	imber (if available): 25760 d by the City and if you are renewing your business license, the number
В.	Type of Ownership. Please complete the un-sha and entering the appropriate Entity I.D. Number, if paragraph C below):	ided portions of the following chart by checking the appropriate box below applicable (for an explanation of what an entity number is, please see
	☐ Individual or Sole Proprietorship	
	☐ General Partnership	76 (74 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1
	☐ Limited Partnership (LP)	Number & State:
	☐ Limited Liability Partnership (LLP)	Number & State:
	☐ Limited Liability Company (LLC) (Single Member)	Number & State:
•	☐ LLC (Multi-Member)	Number & State:
	Corporation	Number & State: 104-406 AL
	Other, please explain:	Number & State (if a filing entity under state law):
C.	available through the website of Alabama's Secreta	juired and if the business entity is registered in this state, the number is ry of State at: www.sos.state.al.us/ , under "Government Records". If a rovide the Entity I.D. number (or other similar number by whatever ong with the name of the state.
D.	certificates of incorporation, organization, or other a	and to entities, the entity's formation documents, including articles or pplicable formation documents, as recorded in the probate records of the <i>quired unless</i> : (1) specifically requested by the City, or (2) an Entity I.D. or provided.
	Please date and sign this form in the space provided if you are signing on behalf of an entity please insert Signature: Babase Type or legibly write name: BAY DAVA	the below and either write legibly or type your name under your signature. Title (if applicable): Comptroller Baker Date: 12/16/11

ATTACHMENT 3 CITY OF HUNTSVILLE STANDARDS AND DESIGN GUIDES

- City of Huntsville Standard Specifications for Construction of Public Improvements. Contract Projects, 1991.
- City of Huntsville Engineering Standards, 1991.
- City of Huntsville Design and Acceptance Manual for Force Mains and Pump Stations, 2011.
- 4. City of Huntsville Design and Acceptance Manual for Sanitary Sewers, 2011.
- 5. Alabama Department of Transportation Standard Specifications for Highway Construction, Current Edition.
- 6. City of Huntsville Subdivision Regulations, 1991.

ATTACHMENT 4 DESIGN REVIEWS

0% COMPLETE - PRE-DESIGN CONFERENCE

The ENGINEER shall meet with the OWNER at a 0% complete - Pre-Design Conference. The OWNER's representative (Project Engineer) will be introduced.

CONFERENCE FORMAT

The pre-design meeting will we initiated by the OWNER. The purpose of the conference will be to give the ENGINEER an opportunity to discuss the design of the PROJECT, to visit the PROJECT site, to receive copies of OWNER -furnished documents, if applicable, and to meet the OWNER'S Project Engineer and other personnel working on the PROJECT.

ATTENDEES: (Required)

- ENGINEER
- ALDOT (as appropriate for the type of project)
- Real Estate

- Landscape Management
- Utilities
- Traffic Engineering
- Planning

DISCUSSION TOPICS:

- Authority of OWNERS representative (Written submittal made to the ENGINEER)
- Scope of Work
- Time Requirements
- Budget Restraints
- Testing Requirements
- Permit Responsibilities
- Design criteria
- LC&E requirements
- Plan Requirements
- Special Conditions
- Utility Project
 Notification and a list of all utilities that need to be contacted.

Tree Ordinance

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. A Certificate of Insurance for the ENGINEER and the ENGINEER's subconsultants shall be submitted to the OWNER's PROJECT ENGINEER per Section 10.6.
- 2. Prior to the Pre-Design Conference, a completed draft design criteria document shall be prepared to the best of the ENGINEER'S ability and in conformance with his fee proposal and will serve as the basis of a discussion topic during the Pre-Design Conference. A final version of the design criteria based upon discussion during the meeting shall be prepared by the ENGINEER and distributed with the meeting minutes. A copy of a design criteria format may be found on the City of Huntsville web site at http://www.huntsvilleal.gov/engineering/index.php.
- 3. Within seven (7) calendar days of the 0% Complete Pre-Design Conference, the ENGINEER shall submit to the OWNER's Project Engineer two color copies and an electronic copy of a schedule in Microsoft Projects format showing the critical path and indicating the time frame for the required milestone events and submittals outlined in this document. The schedule shall support a PROJECT completion date in accordance with the Period Of Services in Article 5. When approved, a baseline of the schedule shall be saved from which variances in the schedule can be measured and evaluated.

ATTACHMENT 4 DESIGN REVIEWS

30% COMPLETE - CONCEPTUAL DESIGN

This design review is to show the OWNER how the functional and technical requirements will be met, to indicate the ENGINEER's approach to the solution of technical problems, to show compliance with design criteria or to justify noncompliance and to provide an estimate of probable cost. A field review shall be conducted at this juncture with the OWNER's staff and the ENGINEER to review the proposed field alignment of the PROJECT.

CONFERENCE FORMAT

ATTENDEES: (Required)

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

DISCUSSION TOPICS:

- ENGINEER presents recommended design/solutions along with other options and alternatives considered.
- ENGINEER presents updates on progress of permitting requirements
- ENGINEER presents progress on coordination with other project participants such as the State of Alabama, sub consultants, etc.
- ENGINEER presents budgetary constraints

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. A preliminary list of all permits to be obtained with associated fees.
- 2. An updated schedule in Microsoft Projects format showing the critical path shall be submitted.
- 3. Two color copies and an electronic copy of an updated schedule in Microsoft Projects format showing the critical path shall be submitted.

<u>ATTACHMENT 4</u> <u>DESIGN REVIEWS</u>

60% COMPLETE - PRELIMINARY DESIGN CRITERIA

The review of the PROJECT at this point is primarily to insure that funding limitations are not being exceeded and to insure that the contract documents, design analysis and cost estimates are proceeding in a timely manner, and that the design criteria and previous review comments are being correctly interpreted. An additional review may be required by the OWNER to review changes proposed from previous submittals.

CONFERENCE FORMAT

ATTENDEES: (Required)

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

DISCUSSION TOPICS:

- Additional land acquisition needs, as required.
- Utility Project Notification and a list of all utilities that need to be contacted.
- Technical specifications for special construction items not covered under standard specifications or deviations from standard specifications.
- Update on progress of permitting requirements.
- Erosion control plan requirements, if required by the OWNER.
- Budget constraints.
- Progress on coordination with other project participants such as the City of Huntsville Real Estate Officers (Engineering Department), State of Alabama, sub consultants, etc.

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Plan/Profile drawings shall be 75% complete. Right-of way drawings shall be 100% complete at this submittal (reference Real Estate Division Plan Requirements Section entitled DRAWINGS, included at the end of this proposal)
- 2. An update to the schedule in Microsoft Projects format showing the critical path shall be submitted.
- 3. Unless determined to be inapplicable by the OWNER, Hydraulic reports 75% complete, shall be submitted.
- 4. Three (3) copies of preliminary plans for utilities shall be submitted.
- Legal descriptions for takings shall be submitted. The information shall be 100% complete. (reference Real Estate Division Plan Requirements Section entitled DESCRIPTIONS, included at the end of this proposal)
- 6. Traffic Control Plan, if required. Plan shall be 60% complete at this submittal.
- 7. Detailed preliminary construction cost estimate shall be submitted.
- Results of geotechnical investigations shall be submitted.
- 9. A list of comments made at the 30% review and a summary of each resolution.
- Two color copies and an electronic copy of an update to the schedule in Microsoft Projects format showing the critical path shall be submitted.

ATTACHMENT 4 DESIGN REVIEWS

90% COMPLETE - FINAL REVIEW

The review of this submittal is to ensure that the design is in accordance with directions provided the ENGINEER during the design process.

CONFERENCE FORMAT

DISCUSSION TOPICS

Discussion topics will be handled open forum.

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

- 1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Submittals include Plan/Profile drawings, Construction Details, Detailed cross-sections with cut and fill quantities and storm and sanitary sewer crossings, Erosion control plan, if required, Technical specifications, Right-of way drawings, Traffic Control Plan, Plans for Utilities, Signed Acceptance of Utility Project Notification Form by all affected parties, Design Calculations, and a final cost estimate. All submittals shall be 100% complete.
- 2. Any changes to Land Acquisition needs shall be identified and Legal descriptions for the changes shall be submitted.
- 3. A list of comments made at the 60% review and a summary of each resolution.
- 4. Calculations showing how quantities were determined for each bid item and how the item is to be measured in the field and paid. Three bound copies of corrected quantity calculations to match bid quantities. The following shall be required for each item:
 - Item Number
 - Item Description with standard specification used
 - Detailed calculation to include all measurements, conversion factors, and "standard" weights used
 - Final "calculated" amount and any "increased" amounts
 - Notes to include any deviation from referenced standard specifications

ATTACHMENT 4 DESIGN REVIEWS

100% COMPLETE - READY TO ADVERTISE

After the 90% review, the ENGINEER shall revise the construction documents by incorporating any comments generated during the previous design reviews. The ENGINEER shall prepare final hard copy contract specifications, prepare a bid form, and update the cost estimate as necessary.

CONFERENCE FORMAT

This is a submittal only. Return this sheet with submittal

TES	NO	HEC	WIRED SUBMITTALS TO THE PROJECT ENGINEER
		₁ .	Two (2) sets of complete construction drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system, NAD1983 Alabama East Zone as described in the Code of Alabama (1975), Section 35-2-1. Surveys shall be tied to a minimum of two accepted GPS monuments or one GPS tie point plus an astronomic observation to determine grid north or GPS Survey.
		2.	One (1) Micro station digital and One (1) digital file in either .tiff or .pdf format of construction drawings (must be signed and sealed) – sized 11" x 17".
		3.	Two (2) sets of right-of-way drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system. NAD1983 Alabama East Zone
		4.	One (1) Micro station digital file of right-of-way drawings.
		5.	Two (2) print sets of 8-1/2" x 11" legal descriptions for right-of-way (REVISED SETS ONLY)
		6.	One (1) digital text file of legal descriptions for right-of-way (REVISED FILE ONLY)
		7.	One (1) print copy of Final Construction Cost Estimate.
		8.	One (1) digital spread sheet file of Final Construction Cost Estimate.
		9.	Three (3) printed and bound copies of corrected quantity calculations to match Final Bid Quantities.
		10.	One (1) digital spread sheet file (Excel 2003 format) of Final Bid Quantities.
		11.	Two (2) print sets of contract specifications.
		12.	One (1) digital text file of contract specifications.
		13.	One (1) complete set of signed and sealed calculations.
		14.	One (1) complete set of all approved permits including Location, Character, and Extent, COE, ADEM, etc.
		15.	One (1) complete set of all field notes.
		16.	One (1) copy of digital aerial photography obtained for this PROJECT in (.tif) format, as necessary.
		17.	Utility Project Notification forms and a list of all utilities that need to be contacted.

ATTACHMENT 5 - ENGINEERS PERSONNEL FEE SCHEDULE



Rate Schedule June 2011 - June 2012

Principal Architect/Engine				#00F 00 1
Steve Cawood, PE Bill Wallace, AIA	David Reed, PE, PLS	George Goodwyn, PE		\$225.00 per how
bili vvaliace, AIA	Jeffrey Brewer, AIA	Galen Thackston, PE		
Senior Architect/Engineer				
James Bagley, AIA	Euel Screws, PE	Pol Control DE DE C		\$170.00 per hour
Tracy Bassett, AIA	Cathy Gerachis, ASLA	Bob Carter, PE, PLS	Bruce Bodner, PE	Mike Hamrick
Freddie Lynn, Jr., AIA	Jennifer Landry, NCIDO	Mark Tiller, AIA	Burt Hankins, PE, PLS	David Parker, PE
Chris Engel, AIA	Kevin Wales, PE		Jimmy Highers	Jim Fibbe, PE
Derril Strickland, PE	Gary Owen, AIA	Larry Watts, FAICP Kevin Laird, PE	John Averrett, PE	Jeff Mullins, PE
		•	Mark Coyle, AIA	Steve Alby, AIA
Architect/Engineer I/Interior	r Design I/Project Manag	er I/Hudrogoologi-t	Paul Fridl, AIA	
Citach Taulkitel, I L	Dan Woods, AIA	Jeff Fennell, PE	-	\$150.00 per hour
Chris Eckroate, PE	Carla Young, AIA		Ronald Windham, PE	Roy Jones, PLS
Jonathan Larson, AIA	Jacqui Hart, NCIDQ, AL	Keith Strickland, PE	Jim Walker, AIA	Rick Clay, PLS
Edward Niel, PLS	Shane Sawyer, PE	A Natalie Hobbs, PE Mike Walraven, PE	Findley Frazer, PE	Josh Pierce, PE
Cedric Campbell, PE	Jeffrev Miller, AIA	Eric Lane, PE	James Robinson, PG	Bobby McClure
D. Leonard Robinson, A	IA Bryant Griffin, PE	Michael McNeill, PE	Greg Edrington, PE	Melanie Bryant
Gerald Clark, ASLA	Jane Ross, ASLA	Lee Walters, PWS	Ellen Johnson, NCIDQ	Jymalyn Redmond
Jof Mehaffey, PWS	Rebecca Baird, ASID	Bill Gunn	Scott Steen, AIA	Jeffrey Slaton, AIA
			Heath Reed, PE	
Architect/Engineer II/Interior Andy Perry, PF	r Design II/Project Mana	ger II/Land Surveyor/F	cologist	A
,, 12	Cole Willains, PE	Chad Jordan, PE	Kody Walker, PE	\$130.00 per hour
Max Vaughn, PE	Susan McGallagher	Kirk Clayton, PLS	Jeremy Sasser, PE	Chris Beasley
John Bricken, ASLA	Van Marcus Peavy, PLS	Leslie Kearley, PE	Joseph Jones, PE	Russ Roberts, PE
Lamar Davis, CSI	Trent Catron, NCIDQ	Michelle Morton, NCIDO	Jill Puncochar Hall, IIDA	Jason Floyd, AIA
Jeremy Sasser, PE	Jay Evans, AIA	Richard Campbell, PLS	Richard Painter, AIA	
ntern I/Architect/Empirers/		-		Derick Mitchell
ntern I/Architect/Engineer/In Alecia Brightwell, PE	iterior Design/Geologist/	Biologist/Resource Ar	alyst/Ecologist	\$110.00 per hour
Rusty Blackwell, PLS	William McLemore, P.C.	Stuart Blackwell, PWS	Jason Crunk, ASLA	A.J. Page
Tim Johnson, PE	Bryan McClure, PE	Michael Allen	Hieu Vo	Amy Bell
Wheeler Crook, PE	Kerry Henry, PE	D.J. Strickland, PE	Adam Ingram, PE, PLS	Kyonta Smith
Bryan Price, PE	Rob Carlton, PWS	Gary Brown, CPESC	Bryan Bell	Sheppard Dearing
Diyun i rice, i E	Davey Lyon, PE	Steven Fitzgerald, PE	•	oneppara Dearing
tern II/Architect/Engineer/Bi	iningist/Resource Amel-	.1		
Brooks Butler, PE	Melissa Mehaffey		_	\$95.00 per hour
DeAnn Grantham, EI	,	Brian Bass, PE	Emad Karas, PE	Denise King, EI
Ronnise Ehlers	* * · · · · · · · · · · · · · · · · · ·	Nicholus Sewell, PE	Amanda Brendle	Justin Edwards
Nathan Tomberlin		Anthony Sorace Mathis Sneed	Ryan Pearce, PE	Chris Murphy
		Mudits Stieed	Mary Catherine Price, El	Justin Barrett, EIT
ADD Technical I				
Chris Thrash	Margie Lambert	Frank Noble	Vaid D	\$90.00 per hour
Jeff Smith	A	Nathan McFarland	Keith Dykes	Brian Carey
DD m 1 1 1 mm -				
ADD Technical II/Draftsman				MET OO .
	Kevin Jett	Gerald Singleton	Jason Price	\$75.00 per hour
	Robin McDaniel F	Brent Tucker	John Sumerlin	Dianne Massey
Kenya Chillous	D 1		Sarah Ray	Kevin Downing
DD Technical III				
me .a.s.				\$65.00 per hour
Junquiua DIUWII	Jonathan Reddoch T	C.C. Parks	Adam Hooks	Michael Lacasse
				ruier Lacasse

Construction	Administration/ROW Acquisit	
		m

David Langford
Steve Pendley
Mark Butcher
Jay Segrest
Jimmy Dale Merryman
Steve Albritton
Michael Thomasson

Charles Duke
Jeremy Lewis
Alicia Pettis
Mike Brown
Jeff Little
Brad Daniel
Craig Sanferd

Rick Ruth Marvin Worley Carl Gober Miles Ward Kevin Diamond Mary Weaver Winston Richardson Art Williams Jay Turner Steve Dean Bill Stutts Ken Price Brian Doss Terrance Duke \$110.00 per hour Judy Jones Terry Staggs Bo Boykin Tylon Smith Russell Stokes Donnie Earnest

Administrative

Pat Bruce Andrea Hodges LuAnn Bowser Pat Richardson Ann Thrasher Jana Bence, CDT Hobbie Dees Lanita Finley Hailey Griffith

Beth Bianchi Tammy Huff Sue Jones Elizabeth Carter Griffin

Carrie Day Linda Geistman Lindley Salmon Kathy Fields \$65.00 per hour Renee Powler Patricia Gerecht Michelle Roley Miranda Dunn

Surveying

Party Chief Two-Man Survey Party Three-Man Survey Party Four-Man Survey Party

\$75.00 per hour \$100.00 per hour \$135.00 per hour \$145.00 per hour

These rates will remain in effect through the duration of the contract

ATTACHMENT 6 - PROGRESS REPORT (Article 8)

PROGRESS REPOR	RT NO	FOR MONTH AND YEAR	
PROJECT		F	PROJECT NO.
DATE	_ CITY'S PROJE	ECT ENGINEER	
			OJ. MAN
CURRENT MONTH	% COMPLETE: _	PREV. MONTH %	COMPLETE:
ATTACH A "SHOULD MICROSOFT PROJE	HAVE STARTE	D TASKS REPORT* AND A S ALL ACTIVITY THAT IS BI	"SLIPPING TASKS REPORT" FROM EHIND SCHEDULE.
1 HIKTT (30) DATS A	FIER THE DATE	OF THIS PROGRESS REP	
STATE WHAT ACTIO	ON IS BEING TAK	EN TO BRING PROJECT B	ACK TO SCHEDULE:
MILESTONE SUBMIT 30% 60%	TALS	SCHEDULED DATE	ACTUAL DATE
90%			
100% "FINAL" INVOICE SUI			
SUBCONSULTANTS CONTRACTED COM	PAID IN FULL PLETION DATE:	February 10, 2013	
changed except by cor	ontniy on each pr otract change ord	Daress report. The schedule	e project (Attachment 4) with the Project and contract completion date shall not be an inlestone submittal dates shall be project Engineer.)
UPDATED SCHEDULI		YES NO	
COMMENTS:			
This progress report (4 without a contract modi	copies) shall be sification.	submitted monthly. Schedule	ed completion dates will not be extended
CERTIFICATION: I ce	rtify that the state	d information is true and acc	urate to the best of my knowledge.
CONSULTANT	DATE	CITY PROJECT	ENGINEER DATE

ATTACHMENT 7 - SUB CONSULTANTS ENGAGED BY THE ENGINEER (Article 9.2)

CONSULTANT NAME AND ADDRESS	DESCRIPTION OF SERVICES	FEE
Skipper Consulting, Inc. 3644 Vann Rd., Suite 100 Birmingham, AL 35235	Traffic Signal Design and Traffic Signal Warrant Study	\$13,580.00
Geo Solutions, LLC 7201 Opportunity Blvd Huntsville, AL 35810	Geotechnical Services	\$8,000.00
AST Consulting & Contracting, L.L.C. 303-D Beltline Place SW, \$755 Decatur, AL 35603	Environmental Services	\$12,640.00
3	SUB-TOTAL	\$34,220.00
	5% Administrative Fee	\$1,711.00
	TOTAL	\$35,931.00

ATTACHMENT 8 - CONTRACT DOCUMENT REQUIREMENTS LIST

REQUIREMENT	SUBMIT TO	SUBMITTAL REQUIREMENT DATE	NUMBER OF COPIES	REFERENCE SECTION OF CONTRACT AND COMMENTS
Deviations from OWNER's standards.	OWNER	Prior to incorporating deviations.	2	Article 2.5
Products or materials specified by the ENGINEER that are available from only one source.	OWNER	Prior to 100% submittal.	2	Article 2.2
Approval of ENGINEER's Request for Payment.	OWNER	Within ten (10) days of receipt of the request from the ENGINEER.	N/A	Article 3.4
Approval of ENGINEER submittals	OWNER	So as to cause no delay to the ENGINEER or the PROJECT.	N/A	Article 3.8
Change order changes that reduce construction requirements.	OWNER	Prior to authorizing a change.	N/A	Article 3.11
Any information pertaining to any claim.	OWNER	Immediately	2	Article 3.12
Information pertinent to the PROJECT, all criteria and full information as to OWNER's requirements, copies of all design and construction standards.	ENGINEER	So as to not delay the services of the ENGINEER.	2	Article 5.1, 5.2
Notification of delays.	ENGINEER; OWNER	Promptly	4	Article 6.1
ENGINEER's monthly invoices.	OWNER	Monthly	4	Article 8.1.1
Consultant progress report.	OWNER	Monthly	4	Article 8.1.1
Records, data, parameters, design calculations and other information.	OWNER	Cancellation of contract.	2	Article 9.7
Documentation, records of reimbursable expenses, record copies of all written communications, and any memoranda of verbal communications related to the PROJECT.	OWNER	Upon notice from the OWNER.	2	Article 9.4
Termination notification.	OWNER or ENGINEER	7 days prior to termination.		Article 9.10 & 9.11
Certificate of Insurance for ENGINEER.	OWNER	At 0% design conference		Article 10.2(B), 10.6, and Attachment 4.

Insurance cancellation, suspension,	OWNER	30 days prior to effective date		1
or reduction in coverage or limits.	OWNER	except for cancellation which	1	Article 10.4(A)
	1	is 10 days notification.		
Certificate of insurance for sub	OWNER	At 0% design conference.	1	Article 10,7
consultants/subcontractors.		at o , a design comercial.	•	Afficie 10.7
A schedule in Microsoft Projects	Project	Within 7 calendar days of	l hard; l digital	Attachment 4
format showing the critical path.	Engineer	Pre-design conference, 30%	, 6	
		complete design review. 60%		
		design review. Attachment 4		
Drawings.	Project	30% complete design review,	3	Attachment 4
	Engineer	60% design review, 90%		1
		review, and 100% complete.		
Cost estimate.	Project	30% complete design review,	3	Attachment 4
	Engineer	60% review, 90% review,	_	
		and 100% complete.		
Hydraulic reports.	Project	60% design review.	2	Attachment 4
	Engineer		_	- Indemnett 4
Preliminary plans for utilities.	Project	60% design review.	3	Attachment 4
	Engineer	i.	J	/ ttucimicit +
Real Estate Deliverables	Project	60% design review, 90%	Reference Real	Attachment 4, 14
	Engineer	review, 100% complete.	Estate Division	Real Estate Plan
		, , , , ,	Plan	Requirements at
			Requirements	end of this
				proposal
<u> </u>				document
Traffic Control plan.	Project	60% design review.	N/A	Attachment 4
	Engineer			, ittuenment +
Results of geotechnical	Project	30% design review.	2	Attachment 4
investigations.	Engineer			
Technical specifications.	Project	90% review, 100% complete.	N/A	Attachment 4
	Engineer			
Relocation of Utilities	Project	0% review – list of all	2	Attachment 4, 10
5	Engineer	utilities that need to be		
	·	contacted		
		60% review – from all		
		affected parties		1
		90% review – Signed		41
		Acceptance Utility Project		
		Notification Form		
Design Calculations	Project	90% review, 100% complete	1	Attachment 4
Si-in-1 C 1	Engineer			
Digital copy of drawings.	Project	100% complete - 1 in .dgn	2	Attachment 4
	Engineer	format; 1 in .tiff or .pdf		
	· · · · · · · · · · · · · · · · · · ·	format		
Digital text files.	Project	100% complete.	1	Attachment 4
	Engineer			
Bid Quantities.	Project	100% complete. Digital in	3	Attachment 4
1	Engineer	Excel 2003 format and hard		· · · · · · · · · · · · · · · · · · ·
		сору	1	
ermits and Permit Applications	Project	100% complete.	1	Attachment 4
	Engineer			Attachment 4
ield notes.	Project	100% complete.	1	Attachment 4
	Engineer	, and the same of	1	Attachment 4
		100% complete		A tto ober and 4
	•	- 33 /v complete.	1	Attachment 4
	Project Engineer	100% complete.	1	Attachment 4

Att 8 - Pg 3 of 3 - 06/28/12

Progress Report (Art. 8)	Project Engineer	30% complete design review, 60% design review, 90% design review, 100% completion stage.	4 hard; 1 digital monthly	Attachment 4
--------------------------	---------------------	--	---------------------------	--------------

ATTACHMENT 9 - REQUIREMENTS FOR DOCUMENT SUBMITTALS

All drawings shall be sized 24" x 36", unless otherwise approved by the OWNERS Project Engineer.

Title blocks shall as a minimum, contain the name of the project, date, city project number, and ENGINEER's name. The title block of drawings shall contain a space for the names of the preparer and the reviewer and/or checker. These blocks shall be signed on each submittal (See Attachment "11" for sample standard drawing format). Drawings shall contain alphanumeric revision designations. Drawings issued for review shall be issued with alpha revision designation and the revision letter shall be changed for each submittal containing drawing changes. Drawings issued for construction shall be issued with numeric designation at revision level "0" and described as "Issued for Construction" in the revision description block. Subsequent drawing changes require the revision level to be raised using successively higher numbers and the changes to be marked by circling and briefly described in a revision block.

Unless otherwise specified by the Owners Project Engineer, all drawings for review submittals shall be full or half-size copies. All documents shall be clearly marked in a revision block indicating the applicable submittal milestone, i.e. 30%, 60%, 90%, etc.

Submittals required by the State of Alabama for their review, bidding, etc., shall be of the size, form and numbers of copies as the state may require even though such submittals may differ from the submittals set forth as being required elsewhere in this Agreement.

All drawings shall be prepared in Micro station .DGN format, unless otherwise approved by the OWNERS Project Engineer. Transmittal letters shall consist of a list of files being submitted, a description of the data in each file, and a level/layer schematic of each design file. DGN design files shall have working units as follows: master units in feet, no sub-units, and 1,000 positional units. All data submitted shall use NAD 1983 Alabama East Zone horizontal datum and NAVD 88 vertical datum coordinates.

Digital files shall be submitted by 4-3/4" CD ROM, DVD, 3 and 1/2 inch floppy disk, or to the City of Huntsville F.T.P. site.

All print copies shall be first generation copies.

All text documents shall be prepared in Microsoft Word 2007 format.

All spreadsheets shall be in Microsoft Excel 2007 format.

A schedule showing the critical paths shall be in Microsoft Projects format, unless otherwise approved by the OWNERS Project Engineer.

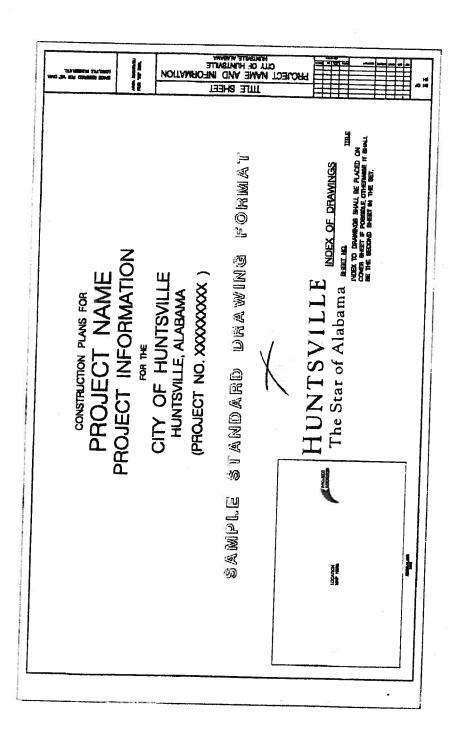
Aerial photography files shall be in Intergraph (.COT) or (.tiff) format.

All mapping shall meet National Map Accuracy Standards unless otherwise noted. If National Map Accuracy Standards are not met, the accuracy of the map shall be identified to the Owners Project Engineer and on the maps derived from the aerial survey. National Map Accuracy Standards are shown below. This and other map standards are shown in Department of the Army, US Army Corps of Engineers standard, "EM 1110-1-1000, Engineering and Design - Photogrammetric Mapping". http://140.194.76.129/publications/eng-manuals/em1110-1-1000/toc.htm

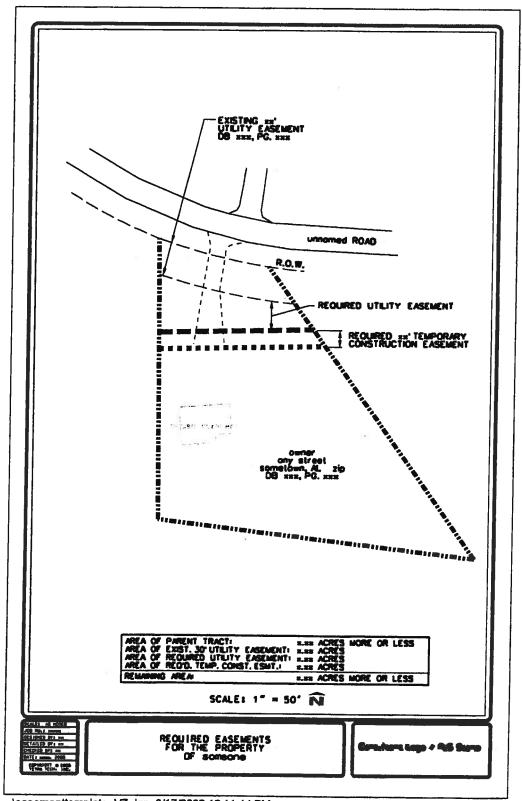
ATTACHMENT 10 - UTILITY PROJECT NOTIFICATION FORM

NAME:	
NAME:(Utility Name)	
PROJECT NAME:	PROJECT NUMBER:
CONSULTING ENGINEER:(Name)	
ENGINEERING REPRESENTATIVE	PHONE:
I have reviewed design drawings or o	ther information as available, and:
DO	DO NOT
LIST NAME(S) OF OTHER UTILITY(S) that sha starting your work:	re poles or facilitles that have to be relocated prior to <u>YO</u> I
NAME OF UTILITY:	
NAME OF UTILITY:	
NAME OF UTILITY:	
OTHER:	
COMMENTS:	
BY:	
AUTHORIZED REPRESENTATIVE	
FIELD CONTACT PERSON:	PHONE:
OFFICE CONTACT PERSON:	PHONE:
DATE:	

ATTACHMENT 11



ATTACHMENT 12 SAMPLE



...\easementtemplate_V7.dgn 3/17/2006 12:11:14 PM

ATTACHMENT 13

United States National Map Accuracy Standards

With a view to the utmost economy and expedition in producing maps which fulfill not only the broad needs for standard or principal maps, but also the reasonable particular needs of individual agencies, standards of accuracy for published maps are defined as follows:

- 1. Horizontal accuracy. For maps on publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: monuments or markers, such as bench marks, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc. In general what is well defined will be determined by what is plottable on the scale of the map within 1/100 inch. Thus while the intersection of two road or property lines meeting at right angles would come within a sensible interpretation, identification of the intersection of such lines meeting at an acute angle would obviously not be practicable within 1/100 inch. Similarly, features not identifiable upon the ground within close limits are not to be considered as test points within the limits quoted, even though their positions may be scaled closely upon the map. In this class would come timber lines, soil boundaries, etc.
- 2. Vertical accuracy, as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than one-half the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.
- 3. The accuracy of any map may be tested by comparing the positions of points whose locations or elevations are shown upon it with corresponding positions as determined by surveys of a higher accuracy. Tests shall be made by the producing agency, which shall also determine which of its maps are to be tested, and the extent of the testing.
- 4. **Published maps meeting these accuracy requirements** shall note this fact on their legends, as follows: "This map complies with National Map accuracy Standards."
- 5. **Published maps whose errors exceed those aforestated** shall omit from their legends all mention of standard accuracy.
- 6. When a published map is a considerable enlargement of a map drawing (manuscript) or of a published map, that fact shall be stated in the legend. For example, "This map is an enlargement of a 1:20,000-scale map drawing," or "This map is an enlargement of a 1:24,000-scale published map."
- 7. To facilitate ready interchange and use of basic information for map construction among all Federal mapmaking agencies, manuscript maps and published maps, wherever economically feasible and consistent with the uses to which the map is to be put, shall conform to latitude and longitude boundaries, being 15 minutes of latitude and longitude, or 7.5 minutes, or 3-3/4 minutes in size.

U.S. BUREAU OF THE BUDGET

ATTACHMENT 14

ENGINEERING DEPARTMENT - REAL ESTATE DIVISION PLAN REQUIREMENTS

DRAWINGS:

Individual Parcels

- Each individual parcel 8 ½" x 14" (dgn or dxf format)
- Show Calculations
 - Before
 - > After
 - Taking
- All Parcels shall be closed shapes (polygons).
- Show Existing and Proposed Right-of-Way on each individual parcel map.
- Property Ownership

Overall Project Land Acquisition Maps

- Total project drawing in dgn or dxf format
- Indicate the following:
 - Stationing on Centerline
 - Existing Right-of-Way
 - Proposed Right-of-Way
 - Existing Easements
 - Proposed Easements
 - Existing Pavement
 - Proposed Pavement/Sidewalks/Structures
 - Existing Structures
 - Property Ownership

Color Standards	(SAN	(PLE)	
Description Existing ROW Proposed ROW Existing Easements Proposed Easements	Color Red Red Orange Orange	Line Style Medium Dashed Solid Medium Dashed Solid Solid	Type Closed Polygon
TCE	Pink	Solid Solid	Closed Polygon Closed Polygon

DESCRIPTIONS:

- Microsoft Word on 3.5" Diskette or CD
- Each Description shall be complete and independent (separate file).
- Hard Copies signed and stamped by PLS.

GENERAL:

- P.K. Nails or other permanent stationing markings shall be required.
- Re-staking of right-of-way or easements may be required (See Article 4).
- All survey plats to be on Alabama State Plane Datum. Strip Maps shall indicate at least 2 monuments in place with Alabama State Plane Coordinate values shown on each.
- Parcel plats and legal descriptions shall indicate the Alabama State Plane Coordinate NAD83 Alabama East Zone
 Value of the point of beginning.

ATTACHMENT 15 - GIS BASE MAP

DESIGN LEVEL	CONTENTS	LINE	COLOR	WEIGHT	TEXT SIZE	FONT	CEL NAM
		1			1		1
1	State Plane Coordinate Grid	0	0	0	20	 	
2	Benchmarks	0	0	0	20	0	
3	Private Street Text	0	105	0	20	 	
3	Street Text	0	3	0	20 (or 18)	0	+
4	Street R/W	7	0	0	20 (OF 18)	0	
5	Street Centerline	7	0	0			
6	Street Pavement	0	3	0	- 		
6	Proposed Street Pavement	3	16	0		 	
6	Private Streets	0	105	0			
6	Proposed Private Road	3	105	0	 		
7	Parking Lots	1	3	1			ļ
	Private Lots used as Roads	1	105	i		 	-
- 8	Secondary RoadsPrivate	2	105	0	 	 -	
8	Secondary Roads	2	3	0	 	 	
8	Trails	3	3	0	 	 	
9	Secondary Roads/Trails Text	0	3	0	20	 	
10	Sidewalks	5	3	0	20	0	
11	Bridges/Culverts/Paved Ditches	0	0	0		 	
12	Hydrology - Major	6	1	0	 		
12	Hydrology - Minor, Ditches	7	i i	0		<u> </u>	ļ
13	Hydrology - Text	0	i	0	25		
14	Tailings & Quarries, Athletic Fields/Text, misc. areas	0	i	0	25	23	
15	Greenways	3	48	0			
16	Speed Tables	0	3	0			
17	Railroad Tracks (Patterned)	0	2	0			TCALM
18	Railroad Text	0	2	0	25		RR
19	Railroad R/W	2	2	0	23	0	
20	Utility Poles (Cell)	0	5	0			
21	Utility Easements	3	5	0			P POLE
22	Utility Text	0	5	- '			
23	Geographic Names	0	3	1			
24	Building Structures	0	0	0			
24	Pools and Text	0	1	Ö	10		
24	Future Site of Structures	2	0	0	-10	!	00001
24	Existing Structures (exact location and shape unknown)	2	0	0			STRUCT STRCEX
25	Property Lines/ refuge bdy.	6	6		30		
26	Cadastral Polygons	6	6	0	20	1	
27	Ownership Text	0	6	- 1			
28	Cemeteries/Text	4	6	0	10		
29	Lot Numbers		 -		25	$-\frac{1}{2}$	
30	Block Numbers				30	0	
31	Addition Names	0	0	0	35	0	
32	Open					0	
33	Lot Ticks						
34	Lot Lines/Property Lines	6	6	0			
35	Trees/Hedge Rows	0	6	0	A S 1		
36	GPS Monuments	0	5	0	AS=1		TREES
37	2' Topo Contour			<u> </u>	18	23	CONTRL
38	5' Topo Contour	0	7	0			
39	25' Major Topo Contour	0	7				
40	X Spot Elevation	0	7	0			

41	FEMA Monuments/Labels	0	3/0	0			
42	Quarter Sections		370	 	18	1	FEMA
43	Section Lines	0	5	+			
44	Features	0	2	0			
44	Cell Towers		12	0			
45	Fences (Pattern)	0	8	0	AS=I		CELTW
46	Format/Legend	0	0	0	AS=1		FENCE
		Ü	0	0	1		Limleg
47	Mass Points	0	7				Madleg
48	Break Lines	0	7	2			
49	Open		'	2			
50	Billboards	0	37				
51	Sanitary Sewer	0	37				BBOAR
52	Sanitary Sewer Text			3			
53	Storm Water Features	0					
54	Storm Water Text			3			
55	Open						
56	Property Address	0					
57	Text Tag for Buildings	0	!	0		FE	†
58	One Way Arrows			0	10-20	1	
59	Open		3	1			1
60	Open						
61	Open					11	N.
62	Monuments for Setup						
	(point cell)						
63	Open			·			1